

# Wisconsin Air Cargo Study

Scott Brummond Wisconsin Department of Transportation

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| 16. Abstract<br>Air cargo is a key economic lifeline for the communities that have airports. Manufacturers, businesses, hospitals and<br>other community cornerstone employers depend on air cargo to successfully operate. While there is no doubt that air<br>cargo represents significant value to those employers, the ability to quantify the dollar value has been difficult to<br>obtain. The goal of this project was to obtain enough raw data to analyze and develop supported conclusions<br>regarding the economic value of air cargo activities. |  |   |  |   |  |  |  |  |
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## Wisconsin Air Cargo Study

## **Executive Summary**

Air cargo is a key economic lifeline for the communities that have airports. Manufacturers, businesses, hospitals and other community cornerstone employers depend on air cargo to successfully operate. While there is no doubt that air cargo represents significant value to those employers, the ability to quantify the dollar value has been difficult to obtain. To date, no studies have been successfully conducted to determine the economic value of cargo activities at our state airports.

The goal of this project was to obtain enough raw data to analyze and develop supported conclusions regarding the economic value of air cargo activities. The Wisconsin Air Cargo Survey was the first step of the overall study.

The Wisconsin Air Cargo Survey was staged in two phases by the University of Wisconsin Survey Center (UWSC). Phase 1 (preliminary research), yielded beneficial insight, but no quantifiable data related to air cargo activity in neighboring states. During phase 2, UWSC's survey revealed that a large number of Wisconsin airport managers did not have and/or were not able to access some of the primary data that the survey was designed to collect.

UWSC provided the raw data from both phases of their research. Analysis indicated that the primary study goal would not be met because the information we expected to collect was not available. Thus, more comprehensive analysis was required to determine if additional research or data gathering would be needed to achieve the initial goal.

## **Background and Goals**

Wisconsin airports, especially general aviation airports, often face public scrutiny that questions their value to the community. In every community, there are citizens who question the wisdom of investing community dollars into the local airport. Often, those citizens are not aware of the overall economic value of the airport. As a result, airport managers and airport boards need data to help them better understand and communicate the overall economic benefits the airport brings to the local community.

The presence of a public airport capable of handling corporate aircraft is often a deciding factor when larger companies select a business site. Prompt and reliable service by an air cargo carrier or a private transporter creates a competitive advantage. Even smaller businesses, whose customers tend to be in local markets, will use air cargo for time-sensitive shipments. However, all of these conclusions are subjective. Statistical evidence is needed to quantify the value of airport cargo operations.

The Bureau of Aeronautics often works with an airport to conduct an economic impact study of the airport, which includes air cargo activities. The final report breaks down the economic related contributions of the airport, including: jobs, earnings, and money injected into the local economy. However, due to the extensive nature of these studies, they are conducted one at a time and only upon request.

The ultimate objective of the Wisconsin Air Cargo Study was to establish a general economic snapshot of an airport based on its size. Wisconsin airports are categorized into four size categories: small, medium, large and commercial service. The study aimed to collect activity data from airports within each size category to determine a range in economic value for each of the categories.

## Study Approach

The Wisconsin Air Cargo Survey, conducted by UWSC in the winter of 2009/2010, began Phase 1 with a survey of neighboring Midwest states to determine what, if any, air cargo activity data existed. After gathering Midwest states' data, UWSC conducted Phase 2, a mixed mode survey of Wisconsin airports. The objective of this effort was to collect data in order to evaluate air cargo activity specific to Wisconsin airports.

#### Phase 1

Working with the Bureau of Aeronautics (BOA), UWSC identified five Midwest states (Illinois, Indiana, Iowa, Michigan and Minnesota) and developed a short survey relative to air cargo activity in each state. UWSC conducted interviews with representatives from each state's aviation office and summarized the results in narrative form.

#### Phase 2

The Bureau of Aeronautics established a sample list consisting of airport managers at Wisconsin airports believed to have air cargo operations. The UWSC collected missing contact information from the Department of Transportation website. Fifty-five airports were surveyed.

## Study Design

The main focus of this project was gathering data from Wisconsin airports. The Wisconsin Air Cargo Survey was a four-page survey that asked Wisconsin airport managers about cargo activity at the airport. A pretest, or sample survey, was conducted from December 2009 through January 2010 with four Wisconsin airports, using the actual survey questions. The pretest process included an initial mailing of the questionnaire, followed at two week intervals with an email reminder, another survey packet, and a telephone prompt. The survey questions were slightly modified for clarity based upon pretest feedback and results. The pretest airports received follow-up calls on modified questions.

#### **Airport Contact**

The final survey design called for two waves of mailings with follow-up contact via email or mail, as well as telephone prompts. Telephone interviews of non-responders were conducted as needed:

- 1. The first contact was a mailing of the questionnaire, a personalized cover-letter, and a self-addressed return envelope, mailed in a first-class stamped outgoing envelope. This mailing was sent to all fifty-five airports.
- 2. The second contact was a reminder, sent by either email or as a postcard sent by mail to the entire sample.

- 3. The third contact was a telephone call to non-responders, prompting return of the questionnaire, with an offer of a follow-up call to complete the survey over the telephone.
- 4. The fourth contact was another mailing of the questionnaire packet. This mailing included a cover-letter that conveyed a heightened sense of urgency. This mailing was sent to all non-responders.
- 5. Remaining contacts were telephone prompts, phone interviews, and faxed surveys.

The following were standards in Airport Contact:

- BOA provided letterhead and outgoing envelopes, which included the Wisconsin Department of Transportation logo and return address.
- Cover letters were dated and personalized with full names and addresses.
- Cover letter, reminder postcard, and emails were addressed from the Bureau's Aeronautical and Technical Services Section Chief. This was done under the pretense that airports would be more likely to respond to a request directly from the bureau, with which the airports had a working relationship.
- All mailings included contact information for the UWSC Project Director.
- Return envelopes were directed to the UWSC.

#### Survey

The survey consisted of 15 multiple-part short answer questions regarding numbers of flights, quantities and value of materials, staffing support and businesses that ship and receive cargo. Survey questions were developed anticipating that airport managers would know or have access to all of the information requested. The overall response rate of the Wisconsin Air Cargo Survey was excellent. <u>98%</u> of all airports with cargo operations completed the survey. As final deliverables, UWSC provided the <u>Phase</u> <u>1/preliminary research findings</u> in a narrative summary and Phase 2 findings, the <u>Wisconsin Air Cargo Survey data</u>, in Excel spreadsheet format, including a copy of the <u>survey questionnaire</u> and all completed surveys with attachments.

## Study Results and Observations

UWSC succeeded in contacting all neighboring states to gather at least some information about their airports. However, there was little quantifiable data available, especially on cargo activities at general aviation airports. See <u>Phase 1/preliminary</u> research findings for narrative summary of this survey.

The results of Phase 1 proved to be foreshadowing. During UWSC's survey of Wisconsin airports, they encountered a large number of airport managers who did not have and/or were not able to access some of the primary data that the survey was designed to collect. Simply put, the quantity of cargo shipped in and out of their airports was unknown. Generally, operations data (take-offs and landings) was known, but on many occasions, airport managers could only provide educated guesses to the rest of the survey questions. Many questions were often left unanswered.

No Wisconsin airport fully documented air cargo operations at their airport well enough to determine the economic value of their air cargo activity. Shipping/freight companies hired to pick up/drop off products for air transport may have more solid information and may be able to answer survey questions better than airport managers. However, the scope of this survey did not go beyond contacting the airport manager.

Though the survey results did not meet expectations, results were analyzed and general observations were developed:

- Despite the lack of specific cargo activity data, most airport managers felt their facility adequately meets the needs of current and future volume and type of cargo activity at their airport.
- Most common cargo types seem to be manufacturing-related, auto and aircraft parts, plastics and rubber products, and "other"



• Many of the "other" are identified as medical-related. (Figure 1)

Figure 1- Types of Air Cargo

- Average cargo activity dropped between 2007 and 2008, likely the result of the recession, though five airports experienced increases. (Figure 2)
  - The following industries were affiliated with growing cargo during 2007-2008
    - Agriculture
    - Apparel
    - Computers
    - Finance/insurance
    - Education/arts
    - Other (likely medical)
- The outlook on cargo over the next 5 years is relatively positive
  - No airports reported that they expected to see cargo "decrease a lot or somewhat" over the next 5 years
  - o Only one airport (General Mitchell) expected to see cargo "decrease a little"
  - 17 of responding airports expected to see "no change" in cargo over the next 5 years, 22 airports expected to see an increase in cargo.



Figure 2 – Air Cargo Changes



Figure 3 - Airports that reported belly cargo activity

- Belly cargo (cargo stored under the main deck of the aircraft) represented a significant revenue source for those air companies that transported goods in their aircraft. While it is difficult to determine the economic benefit back to the community, it's a low cost service to the carrier that may result in lower shipping costs to the company shipping their goods. The bottom-line is that belly cargo is a good deal, so having accurate data is important to the overall study. (Figure 3)
- Larger, primary airports that deal with the majority of air cargo delivery have very little or no information available regarding air cargo operations at their airports. Logical assumption is that they would be the largest of all WI airports for air cargo transports. They have the capacity to handle large aircraft, and a large enough

staff to provide support. However, the survey results did not support that assumption. Outagamie County Airport (ATW) was the only primary, commercial service airport that provided detailed, known information regarding their air cargo operations. They knew who the shipping companies were that used their airport, where the products originated (i.e. company), type of goods being shipped and what industry used air cargo for transporting their goods. Although airports had this information, Outagamie along with Rice Lake were the most thorough. Outagamie was the only airport to provide a supported estimated cargo value (\$30,000-\$100,000 daily, \$7.9-26.4 million in 2008), where all other airports were only able to guess what their cargo value was for 2008.



Figure 4 – Average Cargo Tons by Year

- Perhaps the most critical information needed was the value of the cargo being transported. Some airport managers were able to report overall tonnage transported, however tons of cargo does not equate to value. (Figure 4) Few airports reported an estimated value of cargo and those that did, with the exception of Outagamie County, stated that they guessed the value.
- Hours of cargo support is an important element. The manpower support required to transport cargo creates jobs which subsequently results in money earned and used within local communities. Most general aviation airports do not have staff dedicated to air cargo operations at the airport. These tasks are among many they perform, but they do equate to a dollar value. (Figure 5)



Figure 5 – Hours of Cargo Support

## **Conclusions**

Primary concern with the data collected was the quality of the data itself. There are many inconsistencies with the data and few substantive responses on a number of questions. Many of the survey answers were "best guess estimates" and it was apparent that there was a general lack of knowledge regarding many of the questions. Subsequently, there is a low level of confidence in the accuracy of the data and thus, it has little value for the original intended purpose.

It is impossible to analyze nonexistent information, thus to achieve the original goal of this study, we need additional supported data and a better collection strategy. Anecdotal information is present, but compounding the challenge is that most air cargo handled at the smaller general aviation airports moves around without being reported to any sort of data collection agency.

One new element that emerged during the analysis that would require additional research should the study be continued. Conventional wisdom assumes it will cost fewer dollars to move cargo by ground than by air. However, one factor unique to air transport of cargo that could change that perspective is the value of *time*. Some obvious examples:

- Small, high-value items to keep a production line from stopping.
  - These could be tools, equipment, or skilled, specialized maintenance personal.

• Moving high-priority, time-sensitive medical items such as organs for transplant, or transporting seriously injured and ill people to specialized medical care.

• Just-in-time deliveries reducing the need to invest in, store, and manage large inventories.

Based on this study it is unclear how to quantify the value of saving *time*. To businesses and industry, time equates to money and undoubtedly there is a means to calculate that value. Unfortunately, this study did not provide the scope or yield enough data to analyze that perspective. To obtain necessary data it is likely a large, concerted effort would be needed. The effort may include a team traveling to airports, corporations and agencies to interview personnel, research records and determine the effect air cargo has on operations and costs. Knowing how much cargo moves around the state alone, will not provide the "economic benefit" answer.

Other than the general observations, the results of the study have little value on their own. Although tidbits of information will prove useful in some arena, this study does not provide the data needed to achieve the original goal. It does however, identify future areas of research and can be considered the first step in the study process.

Should the study be continued, the next steps will include further data analysis, determining what additional data gathering is needed and developing a plan to obtain that information. Once the data is obtained, full analysis may be conducted to achieve the original goal: determine the economic value of cargo activities at each category of airport as determined by the Wisconsin State Airport System Plan.



#### Sample Description, Field Summary and Response Rate Report for Wisconsin Air Cargo Survey, 2010 P9752 University of Wisconsin Survey Center March 2010

### **Project Description**

The Wisconsin Air Cargo Survey is a mixed mode survey conducted by the University of Wisconsin Survey Center in the winter of 2009/2010 on behalf of Scott Brummond, Wisconsin Department of Transportation. Mr. Brummond is the Chief of Aeronautical and Technical Services, Bureau of Aeronautics, at the Wisconsin Department of Transportation (WisDOT). The Wisconsin Air Cargo Survey is part of the study on Economic Value of Air Cargo in Wisconsin, managed by Tom Martinelli, CTC & Associates LLC, for the WisDOT.

The objective of the survey was to evaluate air cargo activity at Wisconsin airports.

#### University of Wisconsin Survey Center

Founded in 1987, the University of Wisconsin Survey Center (UWSC) serves the survey research needs of a wide variety of clients including faculty, staff, and administration at the University of Wisconsin; faculty and staff at other universities; federal, state, and local governmental agencies; and not-for-profit organizations. A department in the College of Letters and Science of the University of Wisconsin—Madison, the UWSC provides a complete range of survey research capabilities. The mission of the Survey Center is to assist researchers by providing the highest quality survey research services.

Professor Nora Cate Schaeffer is the Director of the UWSC. Mr. John Stevenson is the Associate Director. Vicki J. Lein served as the Project Director, and compiled this report.

#### **Sample Description**

The client established sample list consisted of airport managers at Wisconsin airports believed to have air cargo operations. The UWSC collected missing contact information from the Department of Transportation website. Fifty-five cases were fielded.

## Study Design

The Wisconsin Air Cargo Survey is a four-page survey of Wisconsin airport managers about cargo activity at the airport.

A pretest was conducted from December 2009 through January 2010 with four Wisconsin airports, using real sample. The pretest design included an initial mailing of the questionnaire, followed at two week intervals with an email reminder, another survey packet, and a telephone prompt. The study instrument and design was altered based upon pretest results. The pretest sample received follow-up calls on altered questions

The final study design called for two waves of mailings with follow-up email or mail, and telephone prompts, with telephone interviews of non-responders as needed (see Table 1):

- 1. The first contact was a mailing of the questionnaire, a personalized cover-letter, and a self-addressed return envelope, mailed in a first-class stamped outgoing envelope. This mailing was sent to the entire sample.
- 2. The second contact was a reminder, sent by either email or as a postcard sent by mail to the entire sample.
- 3. The third contact was a telephone call to non-responders, prompting return of the questionnaire, with an offer of a follow-up call to complete the survey over the telephone.
- 4. The fourth contact was another mailing of the questionnaire packet. The cover-letter variation employed a heightened sense of urgency. This mailing was sent to all non-responders.
- 5. Remaining contacts were telephone prompts, phone interviews, and faxed surveys.

 Table 1:
 Wisconsin Air Cargo Survey Plan and Implementation

| Contact  | Field Plan  | Date Sent              | Sample      |
|--|-------------|------------------------|-------------|
| Mail initial questionnaire   | Т           | 2/2/2010               | 51          |
| Email reminder<br>Mail postcard reminder, if lack email                      | T + 1 week  | 1/8/2010<br>1/9/2010   | 45<br>6     |
| Phone prompt to non-responders<br>Phone interview                            | T + 3 weeks | 2/23/2010<br>2/25/2010 | 21<br>2     |
| Mail second questionnaire to non-responders                                  | T + 4 weeks | 3/2/2010               | 12          |
| Phone prompt to non-responders<br>Phone interview<br>Fax third questionnaire | As needed   | various                | 5<br>2<br>3 |

The field period ended on March 31, 2010.

The following design decisions were reflected in mailings:

- Client provided letterhead and outgoing envelopes included the Wisconsin Department of Transportation logo and return address.
- Cover letters were dated and personalized with full names and addresses.
- Cover letter, reminder postcard, and emails were addressed from Scott Brummond, Chief, Aeronautical and Technical Services.
- All mailings included contact information for the UWSC Project Director.
- Return envelopes were directed to the UWSC.

#### **Response Rate**

The pretest fielded from December 2009 through January 2010. The final survey fielded from February, 2010 through March 2010. The overall response rate was 98% (see Table 2). Surveys returned with notes indicating the airport had no air cargo activity were deemed ineligible.

|            | Sample Disposition                        | Number of Cases |
|------------|---|-----------------|
|            | Total fielded sample                      | 55              |
|            |   |                 |
| Eligible   | Returned completed                        | 51              |
|            |   |                 |
| Ineligible | Returned blank, note of no cargo activity | 3               |
|            |   |                 |
| Incomplete | Survey not returned                       | 1               |
|            |   |                 |
|            | Response Rate                             | 98%             |

# Table 2.Overall Sample Disposition and Response Rate for<br/>Wisconsin Air Cargo Survey

| Response Rate= | # of completed surveys =         | 51          | = 98.1% |
|----------------|----------------------------------|-------------|---------|
|                | Total sample – ineligible sample | 55 - 3 = 52 | _       |

## Deliverables

As final deliverables, UWSC provided the Wisconsin Air Cargo Survey data in Excel spreadsheet format, a copy of the questionnaire, and all completed surveys with attachments.

#### **Delivered files:**

| WI_AirCargoData_2010.xlsx   | Final data; Excel                                      |
|-----------------------------|--|
| WI_AirCargoSurvey_q7q8.xlsx | Detailed response for question 7 and question 8; Excel |
| WisconsinAirCargoSurvey.pdf | Wisconsin air cargo questionnaire; pdf file            |

P9752\_AirCargo \_ResponseRateReport.pdf

|                 | Appendix D. All Cargo Sulvey, 2010                    |         |                |                                      | Q1a                           | Q1d                            | Q2a                                    | Q2d                                     | Q3_08a                            | Q3_07a                            | Q3_06a                            | Q3_08d                          | Q3_07d                             | Q3_06d                             | Q3a                        |
|-----------------|---|---------|----------------|--------------------------------------|-------------------------------|--------------------------------|--|---|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|------------------------------------|------------------------------------|----------------------------|
|                 | Airport   | First   | Last           | Notes                                | Flights<br>arriving<br>weekly | Flights<br>departing<br>weekly | Cargo<br>flights<br>arriving<br>weekly | Cargo<br>flights<br>departing<br>weekly | Cargo<br>tons<br>arriving<br>2008 | Cargo<br>tons<br>arriving<br>2007 | Cargo<br>tons<br>arriving<br>2006 | Cargo tons<br>departing<br>2008 | Cargo<br>tons<br>departing<br>2007 | Cargo<br>tons<br>departing<br>2006 | Belly<br>cargo<br>included |
| Value<br>labels | Global value labels: dk=don't know, na=not applicable |         |                |                                      |                               |                                |  |   |                                   |                                   |                                   |                                 |                                    |                                    | 1=Yes, 2=No                |
| 155             | Wittman Regional Airport                              | Peter   | Moll           |                                      | 13501                         | 13501                          | 2                                      | 2                                       | 130                               | 130                               | 130                               | 0                               | 0                                  | 0                                  | 1                          |
| 119             | General Mitchell International Airport                | C Barry | Bateman        |                                      | 1762                          | 1762                           | 150                                    | 150                                     | 44137                             | 48631                             | 50585                             | 47601                           | 45044                              | 46469                              | 1                          |
| 107             | Austin Straubel International Airport                 | Tom     | Miller         | Phone interview                      | 812                           | 812                            | 17                                     | 17                                      | 168                               | 318                               | 391                               | 92                              | 87                                 | 247                                | 1                          |
| 142             | Sheboygan County Memorial Airport                     | Charles | Mayer          |                                      | 800                           | 800                            | dk                                     | dk                                      | dk                                | dk                                | dk                                | dk                              | dk                                 | dk                                 | (blank)                    |
| 104             | Waukesha County Airport/Crites Field                  | Keith   | Markano        |                                      | 560                           | 560                            | 6                                      | 4                                       | 5                                 | UK                                | UK                                | 0.4                             | UK                                 | UK 5                               | 2                          |
| 125             |   | Dan     | Ronthoimor     |                                      | 500                           | 500                            | 0                                      | 0                                       | 0                                 | 0                                 | 0                                 | 3                               | 3                                  | 0                                  | 1                          |
| 132             | Middleton Municipal - Morey Field                     | Richard | Morey          |                                      | 500                           | 500                            | 5                                      | 5                                       | dk                                | dk                                | dk                                | dk                              | dk                                 | dk                                 | dk                         |
| 152             | Watertown Municipal Airport                           | Jeff    | Baum           |                                      | 500                           | 500                            | 1                                      | 1                                       | 1.5                               | 1.5                               | 1.5                               | 1.5                             | 1.5                                | 1.5                                | (blank)                    |
| 144             | Southern Wisconsin Regional Airport                   | Ronald  | Burdick        |                                      | 464                           | 464                            | 0.65                                   | 0.1                                     | 78                                | 170                               | 64                                | 9                               | 422                                | 75                                 | 1                          |
| 128             | Lawrence J. Timmerman Field                           | C Barry | Bateman        |                                      | 432                           | 432                            | (blank)                                | (blank)                                 | (blank)                           | (blank)                           | (blank)                           | (blank)                         | (blank)                            | (blank)                            | (blank)                    |
| 115             | Dane County Regional Airport                          | Bradley | Livingston     |                                      | 337                           | 337                            | 19                                     | 19                                      | 5868                              | 6299                              | (blank)                           | 5493                            | 6034                               | (blank)                            | 1                          |
| 134             | New Richmond Regional Airport                         | Mike    | Demulling      |                                      | 335                           | 335                            | 1                                      | 1                                       | dk                                | dk                                | dk                                | dk                              | dk                                 | dk                                 | (blank)                    |
| 113             | Chippewa Valley Regional Airport                      | Charity | Speich         |                                      | 324                           | 324                            | 2                                      | 2                                       | 0                                 | 0                                 | 0                                 | 0                               | 0                                  | 0                                  | (blank)                    |
| 108             | Baraboo-Wisconsin Dells Airport                       | Cheryl  | Giese          |                                      | 287                           | 287                            | 5                                      | 5                                       | 9                                 | 9                                 | 9                                 | 10                              | 10                                 | 10                                 | 2                          |
| 103             | Rice Lake Regional Airport - Carl S Field             | Jerry   | Stites         |                                      | 247                           | 247                            | 10                                     | 10                                      | 594,000                           | 620,000                           | 570,000                           | 640,000                         | 660,000                            | 610,000                            | 2                          |
| 153             | Wausau Downtown Airport                               | John    | Chmiel         | Dhana latan ing libiatan disala      | 243                           | 243                            | 0.4                                    | 0                                       | ل الم                             | ل الم                             | ل<br>باله                         | الم                             | ل<br>الم                           | U                                  | na                         |
| 140             | Richard I. Bong Airport                               | VVIIIam | Amorae         | Phone Interview - Not applicable     | 210                           | 210                            | 0.4                                    | 0.4                                     | dk                                | dk                                | dk                                |                                 | dk                                 | uk<br>dk                           | 2                          |
| 102             | Outgamie County Regional Airport                      | Martin  |                | Phone linterview                     | 170                           | 170                            | 16                                     | 16                                      | 10.360                            | 7.689                             | 7.102                             | 5.217                           | 4,760                              | 4.634                              | 1                          |
| 130             | Marshfield Municipal Airport - Roy Shwery             | Harold  | Gaier          | FBO salaries not included in nav     | 148                           | 148                            | 10                                     | 10                                      | 25                                | 50                                | 50                                | 25                              | 50                                 | 50                                 | 2                          |
| 124             | L.O. Simenstad Municipal Airport                      | Neil    | Soltis         | i bo sularies not included in pay    | 135                           | 135                            | 0                                      | 1                                       | (blank)                           | (blank)                           | (blank)                           | 0.5                             | 0.5                                | 0.5                                | 2                          |
| 111             | Central Wisconsin Airport                             | Tony    | Yaron          |                                      | 127                           | 127                            | 18                                     | 18                                      | 639                               | 774                               | 976                               | 908                             | 897                                | 956                                | 2                          |
| 101             | Iowa County Airport                                   | Kevin   | King           |                                      | 105                           | 105                            | 5                                      | 5                                       | 130                               | 130                               | 130                               | 0                               | 0                                  | 0                                  | 1                          |
| 147             | Tri-County Regional Airport                           | Marc    | Higgs          |                                      | 90                            | 90                             | 0                                      | 0                                       | 0                                 | 0                                 | 0                                 | 0                               | 0                                  | 0                                  | (blank)                    |
| 129             | Manitowoc County Airport                              | Chuck   | Behnke         | Kurt completed survey                | 75                            | 75                             | 1                                      | 1                                       | 2                                 | 2                                 | 2                                 | 2                               | 2                                  | 2                                  | (blank)                    |
| 145             | Stevens Point Municipal Airport                       | Corey   | Marshke        |                                      | 75                            | 75                             | 17                                     | 17                                      | 1                                 | 3                                 | 3                                 | 1                               | 3                                  | 3                                  | 2                          |
| 112             | Chetek Municipal - Southworth Airport                 | Howard  | Thalacker      |                                      | 70                            | 70                             | 0.2                                    | 0.2                                     | 0.5                               | 0.5                               | 0.5                               | 0.5                             | 0.5                                | 0.5                                | (blank)                    |
| 138             | Price County Airport                                  | Chris   | Hallstrand, Jr |                                      | 55                            | 55                             | <1                                     | <1                                      | <1                                | <1                                | <1                                | 2                               | 3                                  | 3.5                                | 2                          |
| 131             | Menomonie Municipal Airport                           | Tim     | Ward           |                                      | 50                            | 50                             | 0                                      | 0                                       | 0                                 | 0                                 | 0                                 | 0                               | 0                                  | 0                                  | (blank)                    |
| 137             | Portage Municipal Airport                             | John    | Рорру          | "I am sorry I could not be of more h | 50                            | 50                             | 0                                      | 0                                       | 0                                 | 0                                 | 0                                 | 0                               | 0                                  | 0                                  | (blank)                    |
| 148             | Twin County Airport, MI                               | Tim     | Spreen         | Phone interview                      | 50                            | 50                             | 5                                      | 5                                       | 125                               | dk                                | dk                                | 1/5                             | dĸ                                 | dk                                 | (blank)                    |
| 106             | Carter Pulaski Airport                                | Steve   | Scherer        |                                      | 30                            | 30                             | 0                                      | 0                                       | 0                                 | 0                                 | 0                                 | 0                               | 0                                  | 0                                  | (Dialik)                   |
| 120             | Gogebic-Iron County Airport MI                        | Jay     | Duray          |                                      | 26                            | 26                             | 6                                      | 6                                       | 78                                | 76                                | 78                                | 78                              | 78                                 | 78                                 | 1                          |
| 109             | Burlington Municipal Airport                          | Gary    | Meisner        |                                      | 25                            | 25                             | 0                                      | 0                                       | (blank)                           | (blank)                           | (blank)                           | (blank)                         | (blank)                            | (blank)                            | (blank)                    |
| 118             | Fond du Lac County Airport                            | Lee     | Perrizo        |                                      | 25                            | 25                             | 0                                      | 0                                       | na                                | na                                | na                                | na                              | na                                 | na                                 | (blank)                    |
| 143             | Shell Lake Municipal Airport                          | Neil    | Petersen       |                                      | 20                            | 20                             | 0                                      | 0                                       | (blank)                           | (blank)                           | (blank)                           | (blank)                         | (blank)                            | (blank)                            | dk                         |
| 146             | Taylor County Airport                                 | James   | Wood           | Phone interview                      | 16                            | 16                             | 1                                      | 1                                       | <1                                | <1                                | <1                                | <1                              | <1                                 | <1                                 | 1                          |
| 149             | Verona Air Park                                       | Robin   | Slotten        | Occassional cargo flight, unsche     | 13                            | 13                             | 0                                      | 0                                       | 0                                 | 0                                 | 0                                 | 0                               | 0                                  | 0                                  | 1                          |
| 121             | John F. Kennedy Memorial Airport                      | John    | Sill           |                                      | 12                            | 12                             | <1                                     | 0                                       | <1                                | <1                                | <1                                | <1                              | <1                                 | <1                                 | 1                          |
| 127             | Langlade County Airport                               | Josh    | Walker         |                                      | 10                            | 10                             | <1                                     | <1                                      | dk                                | dk                                | dk                                | dk                              | dk                                 | dk                                 | (blank)                    |
| 135             | Park Falls Municipal Airport                          | Brian   | Ernst          |                                      | 3                             | 3                              | 0.25                                   | 0.1                                     | <1                                | <1                                | <1                                | <1                              | <1                                 | <1                                 | (blank)                    |
| 141             | Shawano Municipal Airport                             | Clarenc | Schampers      |                                      | 0.5                           | 0.5                            | 0.5                                    | 0.5                                     | na                                | na                                | na                                | na                              | na                                 | na                                 | (blank)                    |
| 105             | Alexander Field-South Wood County Airport             | Kurt    | Gross          |                                      | 0                             | 0                              | 0                                      | 0                                       | (blank)                           | (blank)                           | (blank)                           | (blank)                         | (blonk)                            | (blank)                            | (blank)                    |
| 114             | Lumperiang Municipal Airport                          | Al      | Selerstad      | l                                    | 0                             | 0                              | 0                                      | 0                                       | (Dialik)                          | (Dialik)                          |                                   |                                 |                                    |                                    | (blank)                    |
| 120             | Viroqua Wunicipal Airport                             | lobe    | Schmitz?       | Russ completed survey                | dk                            | dk                             | 0.04                                   | 0.04                                    | (blank)                           | (blank)                           | (blank)                           | (blank)                         | (blank)                            | (blank)                            | (blank)                    |
| 120             | Lancianu Airport/Nobie r. Lee Memorial Field          | lim     | Botzlaff       | Russ completed survey                | dk                            | dk                             | dk                                     | dk                                      | dk                                | dk                                | dk                                | (bialik)<br>dk                  | dk                                 | dk                                 | (blank)                    |
| 117             | Door County Cherryland Airport                        | Keith   | Kashohm        |                                      | (blank)                       | (blank)                        | 0                                      | 0                                       | (blank)                           | (blank)                           | (blank)                           | (blank)                         | (blank)                            | (blank)                            | (blank)                    |
| 123             | Kenosha Regional Airport                              | Wavde   | Buck           |                                      | (blank)                       | (blank)                        | 8                                      | 1                                       | 350                               | 350                               | 350                               | 10                              | 10                                 | 10                                 | 2                          |
| 133             | Neillsville Municipal Airport                         | Jeffrev | Gaier          | No cargo activity                    |                               | ,                              |  |   |                                   |                                   |                                   |                                 |                                    |                                    |                            |
| 136             | Platteville Municipal Airport                         | Jim     | Hughes         | "No air cargo activity at this time  | "                             |                                |  |   |                                   |                                   |                                   |                                 |                                    |                                    |                            |
| 151             | Washington Island Airport                             | Walt    | Nehlsen        | "We are a resort airport and do r    | not have any                  | freight facility               | ,n                                     |   |                                   |                                   |                                   |                                 |                                    |                                    |                            |
| 139             | Rhinelander-Oneida County Airport                     | Joe     | Brauer         | Email response-no survey             |                               |                                | 23?                                    |   | 10?                               |                                   |                                   | 11?                             |                                    |                                    | 1                          |

#### Appendix B: Air Cargo Survey, 2010

| _            |   | Q4f                               | Q4p                               | Q4a             | Q4b                                 | Q5a                                   | Q5d                                    | Q6                  | Q6a   | Q7type                              | Q7aircraft          | Q7full                            | Q7part                            |
|--------------|---|-----------------------------------|-----------------------------------|-----------------|-------------------------------------|---------------------------------------|--|---------------------|---|-------------------------------------|---------------------|-----------------------------------|-----------------------------------|
|              | Airport   | Full-time<br>airport<br>employees | Part-time<br>airport<br>employees | Payroll         | Hours<br>cargo<br>support<br>weekly | Cargo<br>trucks<br>arriving<br>weekly | Cargo<br>trucks<br>departing<br>weekly | Cargo value<br>2008 | Cargo value estimation method                       | Shipper type                        | Shipper<br>aircraft | Full-time<br>shipper<br>employees | Part-time<br>shipper<br>employees |
|              | Global value labels: dk=don't know, na=not applicable |                                   |                                   |                 |                                     |                                       |  |                     |   |                                     |                     |                                   |                                   |
|              | /ittman Regional Airport                              | 7                                 | 2                                 | \$384,747       | 0                                   | 3                                     | 0                                      | dk                  | (blank)   | (blank)                             | turboprop. jet      | 2                                 | 5                                 |
|              | eneral Mitchell International Airport                 | 215                               | 33                                | \$10,981,400    | 200                                 | (blank)                               | (blank)                                | (blank)             | (blank)   | see insert                          | dk                  | dk                                | dk                                |
| 7 A.         | ustin Straubel International Airport                  | 32                                | 0                                 | \$1,300,000     | 0                                   | 20                                    | 20                                     | dk                  | (blank)   | Major, general aviation             | piston              | 0                                 | 0                                 |
| 2 Sh         | neboygan County Memorial Airport                      | 3                                 | 1                                 | \$235,575       | (blank)                             | dk                                    | dk                                     | (blank)             | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
| 4 W          | aukesha County Airport/Crites Field                   | 3                                 | 0                                 | \$234,750       | 0                                   | 4                                     | 4                                      | dk                  | (blank)   | General aviation                    | piston              | 0                                 | 0                                 |
| 5 La         | a Crosse Municipal Airport                            | 15                                | 0                                 | \$989,000       | 0.5                                 | 12                                    | 12                                     | dk                  | (blank)   | other                               | turboprop           | 0                                 | 0                                 |
| 5 <b>D</b>   | odge County Airport                                   | 4                                 | 3                                 | \$110,000       | 0                                   | 0                                     | 0                                      | 0                   | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
| 2 <u>M</u>   | liddleton Municipal - Morey Field                     | 8                                 | 7                                 | \$339,504       | (blank)                             | 5                                     | 5                                      | no record           | (blank)   | UPS                                 | (blank)             | (blank)                           | (blank)                           |
| <u> </u>     | /atertown Municipal Airport                           | 40                                | 20                                | \$1,300,000     | 1                                   | 1                                     | 1                                      | dk                  | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
|              | outhern Wisconsin Regional Airport                    | 6                                 | 1<br>(blank)                      | \$396,000       | na<br>10                            | U.1                                   | U.65                                   | na<br>(blask)       | (blank)   | (blank)                             | turboprop, pis      | 2<br>dk                           | 4<br>dk                           |
|              | awrence J. Timmerman Field                            | 5                                 | (biank)                           | \$1/7,960       | 10                                  | (blank)                               | (blank)                                | (blank)             | (Didnk)   | un                                  | uK<br>iot           | (blank)                           | uk<br>(blank)                     |
|              | ane County Regional Airport                           | 1                                 | 11d                               | 11a<br>\$85.000 | 05                                  |                                       |  | (Dialik)            | (Dialik)<br>(blank)                                 | (blank)                             | (blank)             | (Didrik)                          | (Didrik)                          |
|              | ew Richmond Regional Airport                          | 7                                 | (blank)                           | \$293,000       | 0.5                                 | 0.5                                   | 0.5                                    | (blank)             | (blank)   | commercial nassenger                | turbonron           | (Dialik)                          | (DIATIK)                          |
|              | araboo-Wisconsin Dells Airport                        | (blank)                           | 1                                 | \$10,000        | 5                                   | 5                                     | 5                                      | (blank)             | this is a O for freight runners if they know. They  | other                               | niston              | 1                                 | (blank)                           |
|              | ice Lake Regional Airport - Carl S Field              | 1                                 | 2                                 | \$90,000        | 27                                  | 10                                    | 18                                     | dk                  | Most cargo is shipped/received by LIPS Value        | Major general other (135            | turboprop           | 7                                 | 0                                 |
|              | ausau Downtown Airport                                | 0                                 | 0                                 | \$0             | 0                                   | 0                                     | 0                                      | na                  | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
|              | ichard I. Bong Airport                                | 1                                 | 0                                 | (blank)         | dk                                  | 0.4                                   | 0.4                                    | dk                  | (blank)   | Major intergrated                   | (blank)             | (blank)                           | (blank)                           |
|              | hn H. Batten Airport                                  | 7                                 | 13                                | Refuse          | 0.15                                | 0.08                                  | 0.08                                   | dk                  | (blank)   | regular cargo company               | jet, turboprop      | (blank)                           | (blank)                           |
| 2 0          | utgamie County Regional Airport                       | 20                                | (blank)                           | \$1,000,000     | 35                                  | 275                                   | 275                                    | 7.9 to 26.4 million | 30.000 - 60.000 lbs of air freight daily: \$30.000- | Commercial passenger.               | iet.                | 54                                | 38                                |
| рΜ           | larshfield Municipal Airport - Roy Shwery             | 4                                 | 3                                 | \$39,000        | 1                                   | 1                                     | 0                                      | \$100,000+          | Guess   | General aviation                    | jet, turboprop      | 0                                 | 0                                 |
| 4 L.O        | O. Simenstad Municipal Airport                        | (blank)                           | 3                                 | \$40,000        | 2                                   | 2                                     | 0                                      | \$520,000           | general manufactured fabricated parts @ 10.00/      | General aviation                    | turboprop, pis      | (blank)                           | 3                                 |
| Ce           | entral Wisconsin Airport                              | 19                                | 7                                 | \$1,456,297     | 2                                   | 37                                    | 37                                     | na                  | dk  | General aviation                    | turboprop           | 4                                 | (blank)                           |
| . Io         | wa County Airport                                     | 1                                 | 1                                 | \$64,000        | 0                                   | 10                                    | 10                                     | dk                  | (blank)   | General aviation                    | turboprop           | 6                                 | (blank)                           |
| 7 Tri        | i-County Regional Airport                             | 1                                 | (blank)                           | \$45,000        | 0                                   | 0                                     | 0                                      | 0                   | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
| ЭM           | lanitowoc County Airport                              | 10                                | 15                                | \$949,261       | 1                                   | 1                                     | 1                                      | unknown             | (blank)   | (blank)                             | jet                 | (blank)                           | 3                                 |
| St           | evens Point Municipal Airport                         | 2                                 | 0                                 | \$86,000        | 10                                  | 5                                     | 5                                      | dk                  | (blank)   | General aviation                    | turboprop           | 2                                 | 1                                 |
| 2 <u>C</u>   | netek Municipal - Southworth Airport                  | 0                                 | 4                                 | \$7,000         | 0.2                                 | 0.2                                   | 0.2                                    | \$40,000            | observation of operations & informal discussion     | none                                | (blank)             | (blank)                           | (blank)                           |
| 3 Pr         | rice County Airport                                   | 1                                 | 3                                 | \$75,000        | 1                                   | 71                                    | 1                                      | dk                  | dk  | (blank)                             | (blank)             | (blank)                           | (blank)                           |
| M            | lenomonie Municipal Airport                           | 1                                 | 0                                 | \$21,400        | 0                                   | 0                                     | 0                                      | 0                   | (blank)   | none                                | none                | none                              | none                              |
| <u>P</u>     | ortage Municipal Airport                              | (blank)                           | 2                                 | \$6,700         | 0                                   | 0                                     | 0                                      | na                  | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
|              | win County Airport, MI                                | 2                                 | 1                                 | \$120,000       | 5                                   | 5                                     | 5                                      | dk                  | (blank)   | major integrated, general av        | urboprop, pisto     | 0                                 | 0                                 |
|              | arter Pulaski Airport                                 | 2<br>(hts:sl)                     | 4                                 | \$68,000        | 0                                   | 0                                     | 0                                      | 0                   | (blank)   | none                                | (blank)             | (blank)                           | (blank)                           |
|              | mery Municipal Airport                                | (Dialik)                          | 1                                 | \$6,000         | 0                                   | 0                                     | 0                                      | U                   | (Diditk)  | none<br>major integrated, commercia | (Dialik)            | (Dialik)                          | (Dialik)                          |
|              | ogebic-iron County Airport, IVI                       | 4                                 | 2                                 | \$200,000       | ,                                   | 0                                     | 0                                      | 0                   | (hlank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
|              | uriington Municipal Airport                           | 13                                | 6                                 | \$550,000       | 0                                   | 0                                     | 0                                      | 0                   | (blank)   | (Didilk)                            | (Dialik)            | (bialik)                          | (bialik)                          |
|              | and du Lac County Airport                             | 0                                 | 0                                 | \$550,000       | 0                                   | 0                                     | 0                                      | (blank)             | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
|              | avlor County Airport                                  | 1                                 | 1                                 | \$50,000        | 1                                   | 1                                     | 1                                      | dk                  | Would not be able to guess at the value. They sh    | General aviation                    | iet turboprop       | 0                                 | 0                                 |
|              | erona Air Park  | 0                                 | 0                                 | \$0<br>\$0      | 0                                   | 0                                     | 0                                      | 0                   | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
|              | hn F. Kennedy Memorial Airport                        | 1                                 | 1                                 | \$48,000        | <1                                  | 0                                     | 0                                      | \$100               | an absolute WAG                                     | none                                | none                | none                              | none                              |
| La           | anglade County Airport                                | 1                                 | 0                                 | (blank)         | 0                                   | <1                                    | <1                                     | dk                  | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
| 5 Pa         | ark Falls Municipal Airport                           | (blank)                           | 1                                 | \$3,600         | <1                                  | <1                                    | <1                                     | 3-5,000             | totally guessed                                     | none                                | (blank)             | (blank)                           | (blank)                           |
| 1 Sh         | nawano Municipal Airport                              | (blank)                           | 1                                 | \$24,000,000    | 0                                   | (blank)                               | (blank)                                | (blank)             | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
| 5 AI         | lexander Field-South Wood County Airport              | 2                                 | 2                                 | \$40,000        | 0                                   | 0                                     | 0                                      | 0                   | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
| 1 Cu         | umberland Municipal Airport                           | 0                                 | 2                                 | \$8,500         | 0                                   | 0                                     | 0                                      | 0                   | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
| Vi           | iroqua Municipal Airport                              | 0                                 | 3                                 | \$12,000        | 0                                   | 0                                     | 0                                      | 0                   | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
| 5 La         | keland Airport/Noble F. Lee Memorial Field            | 3                                 | 4                                 | \$200,000       | dk                                  | 0.04                                  | 0.04                                   | dk                  | (blank)   | General aviation                    | turboprop           | 0                                 | 0                                 |
| W            | /est Bend Municipal Airport                           | (blank)                           | 2                                 | \$21,100        | 0                                   | dk                                    | dk                                     | dk                  | (blank)   | General aviation                    | jet, piston         | (blank)                           | (blank)                           |
|              | oor County Cherryland Airport                         | 1                                 | 3                                 | (blank)         | 0                                   | 0                                     | 0                                      | 0                   | (blank)   | (blank)                             | (blank)             | (blank)                           | (blank)                           |
| 3 <u>K</u> e | enosha Regional Airport                               | 3                                 | 5                                 | \$400,000       | 0                                   | 1                                     | 8                                      | na                  | (blank)   | na                                  | na                  | na                                | na                                |
| 3 Ne         | eillsville Municipal Airport                          |                                   |                                   |                 |                                     |                                       |  |                     |   |                                     |                     |                                   |                                   |
| 5 Pl         | atteville Municipal Airport                           |                                   |                                   |                 |                                     |                                       |  |                     |   |                                     |                     |                                   |                                   |
|              | Ashington Island Airport                              |                                   | (11 1)                            |                 | -                                   |                                       |  |                     |   |                                     |                     |                                   |                                   |
| JIR⊦         | hinelander-Oneida County Airport                      | 7                                 | (blank)                           | no answer prov  | <b>I</b> 0                          | no answer pr                          | no answer pr                           | no answer provided  | no answer provided                                  | no answer provided                  | no answer pro       | no answer prov                    | no answer pro                     |

#### Appendix B: Air Cargo Survey, 2010

|                 | Appendix D. All Cargo Survey, 2010                    | Q8ind                                | Q8goods   | 9a    | 9b        | 9c 9     | 9d            | 9e            | 9f            | 9g 9  | h 9i          | 9j         | 9k   | 91 9          | 9m 9n             | 90             | 9 9 P     | 9q     | 9r             | 9s      | 9t        | 9u        | 9v                           |
|-----------------|---|--------------------------------------|---|-------|-----------|----------|---------------|---------------|---------------|-------|---------------|------------|------|---------------|-------------------|----------------|-----------|--------|----------------|---------|-----------|-----------|------------------------------|
|                 | Airport   | Originator industry                  | Originator goods  | agric | food      | bev      | apparel       | leather       | poon          | print | cnem<br>plast | metal      | mach | comp          | electric<br>parts | mfra misc      | wholesale | postal | courrier       | fin ins | educ      | arts      | other                        |
| Value<br>labels | Global value labels: dk=don't know, na=not applicable |                                      |   |       |           |          |               |               |               |       |               |            |      |               |                   |                |           |        |                |         |           |           |                              |
| 155             | Wittman Regional Airport                              | miscellaneous                        | miscellaneous   |       |           |          |               |               |               |       |               | 1          | 1    |               | 1                 | 1              |           |        | 1              |         |           |           |                              |
| 119             | General Mitchell International Airport                | dk                                   | dk  |       |           |          |               |               |               |       |               |            |      |               |                   |                |           |        | ┶              | ┶       | $\square$ | $\square$ | none checked                 |
| 107             | Austin Straubel International Airport                 | dk (hlash)                           | (blank)   |       | $\square$ |          | $\rightarrow$ | $\rightarrow$ | -+            | -     |               |            |      | $\rightarrow$ |                   |                | +-        | +      | ╇              | ╇       | $\square$ | $\square$ | "no idea what UPS is taking  |
| 142             | Sheboygan County Memorial Airport                     | (blank)                              | (blank)   |       | $\vdash$  |          | +             | +             | +             | +     | 1             |            |      | +             | -                 | +              | +-        | +      | ┢              | +       | ⊢         | $\vdash$  | "medical supplies"           |
| 104             | Vaukesna County Airport/Crites Field                  | (blank)                              | (blank)   |       |           |          | -             | -             | -             | -     | +             |            |      | _             |                   | +              | +         | +      | ┢              | ┿       | H         | ┝──┦      | none checked                 |
| 125             | Dodge County Airport                                  | (blank)                              | (blank)   |       |           |          | +             | +             | +             | +     | +             |            |      | -             | +                 | ╋              | +         | +      | ┢              | ╋       | $\vdash$  | ┢╼┦       | none checked                 |
| 132             | Middleton Municipal - Morey Field                     | (blank)                              | (blank)   |       |           |          | -             | -             | -             | -     | -             |            |      | -             |                   | +              | +         | +      | ┿              | +       | $\vdash$  | $\vdash$  | "UPS"                        |
| 152             | Watertown Municipal Airport                           | (blank)                              | (blank)   |       |           |          | +             | -             | +             | -     |               |            |      | -             |                   | ╈              | +         | +      | ┢              | +       | ⊢┦        | $\vdash$  | none checked                 |
| 144             | Southern Wisconsin, Regional Airport                  | automobile manufacturing, plastic    | automobile parts  |       |           |          | +             | -             | +             | +     | +             |            |      | -             | 1                 | ╈              | +         | +      | +              | +-      | ⊢┦        | $\square$ |                              |
| 128             | Lawrence J. Timmerman Field                           | dk                                   | dk  |       |           |          | +             |               |               |       |               |            |      |               |                   | ╈              | +         |        | +              | +       | H         | $\square$ | none checked                 |
| 115             | Dane County Regional Airport                          | (blank)                              | (blank)   |       |           |          |               |               |               |       |               |            |      |               |                   |                | -         |        | +              | +       | H         | $\square$ | none checked                 |
| 134             | New Richmond Regional Airport                         | (blank)                              | (blank)   |       |           |          |               |               | -             |       | 1             |            | 1    |               | 1                 | +              | +         | +      | 1              | +       | H         | $\square$ |                              |
| 113             | Chippewa Valley Regional Airport                      | (blank)                              | (blank)   |       |           |          |               |               |               |       |               |            |      |               | 1                 | $\top$         |           |        | -              |         | H         | $\square$ | "pets, medical supplies"     |
| 108             | Baraboo-Wisconsin Dells Airport                       | none                                 | (blank)   |       |           |          |               |               |               |       |               |            |      |               |                   |                |           |        | 1              |         |           | $\square$ |                              |
| 103             | Rice Lake Regional Airport - Carl S Field             | Scale manufacturing                  | Parts. Difficult to know for most shippers                  | 1     | 1         |          |               |               | 1             | 1     |               |            | 1    | 1             | 1 1               |                |           |        | 1              | 1       |           | $\square$ |                              |
| 153             | Wausau Downtown Airport                               | (blank)                              | (blank)   |       |           |          |               |               |               |       |               |            |      |               |                   |                |           |        |                |         |           |           | none checked                 |
| 140             | Richard I. Bong Airport                               | (blank)                              | dk  |       |           |          |               |               |               |       |               |            |      |               |                   |                |           |        |                |         |           |           | none checked                 |
| 122             | John H. Batten Airport                                | agricultural/construction , construc | parts, assembly line parts                                  | 1     |           |          |               |               |               |       |               |            |      |               | 1                 |                |           |        | ┶              | ┶       | $\square$ | $\square$ | "recreational products , boa |
| 102             | Outgamie County Regional Airport                      | manufacturing, pharmacy              | Computer boards, drugs, clothes, trinkets, exhaust fans,    |       |           |          | 1             |               |               | 1     |               |            |      | 1             | 1 1               | 1              |           | 1      | ┶              | 1       | 1         | 1         | "pharmacy products"          |
| 130             | Marshfield Municipal Airport - Roy Shwery             | medical, trasportation equipment i   | body parts/organ donors, ATV mufflers & parts               |       |           |          |               | _             |               |       |               |            |      |               |                   | 1              | _         |        | ┶              | ┶       | $\square$ | $\square$ | Donor Flights                |
| 124             | L.O. Simenstad Municipal Airport                      | ATV and motorcycle manufacturing     | fabricated parts, orthopedic products, parts and equipment  |       |           |          | _             | _             |               | _     |               |            |      | _             |                   | 1              | _         | +-     | Ļ              | ┶       | $\square$ | $\square$ |                              |
| 111             | Central Wisconsin Airport                             | shipping/freight                     | misc  |       |           |          | _             | _             | -             |       |               |            |      | _             |                   | +              | _         | 1      | $\frac{1}{1}$  | ╇       | $\square$ | $\square$ |                              |
| 101             | Iowa County Airport                                   | dk (blank)                           | Anything and everything that UPS will carry. Auto part,     | 1     |           |          | 1             | 1             | 1             | 1     | 1 1           | 1          |      | 1             | 1 1               | 1              | +-        | 1      | + <sup>1</sup> | +       | ⊢         | $\vdash$  | nana shaskad                 |
| 147             | Iri-County Regional Airport                           | (Dialik)                             | (Didilk)  |       | $\vdash$  |          | +             | +             | +             | -+    | _             |            |      | -             | 1                 | ╋              | +         | +      | ┢              | —       | ⊢         | $\vdash$  | Nuclear plant cupplies and r |
| 129             | Manitowoc County Airport                              | various                              | various   |       |           |          | -             | -             | +             | -     | -             |            |      | _             | -                 | ╋              | -         | -      | ┢              | +       | ⊢┦        | ┢┻┥       | "various"                    |
| 143             | Chotok Municipal Southworth Airport                   | small turbine manufacturing          | intermittent air shinments                                  |       | $\vdash$  |          | +             | +             | +             | +     | +-            | 1          |      | -             |                   | 1              | +         | +      | ┢              | +       | ⊢┦        | $\vdash$  | various                      |
| 138             | Price County Airport                                  | plastic molding                      | medical & auto parts  |       |           |          | +             | -             | 1             | -     | 1             | 1          | 1    | -             |                   | $+\frac{1}{1}$ | +-        | +      | ╋              | +       | ⊢┦        | $\vdash$  |                              |
| 131             | Menomonie Municipal Airport                           | none                                 | none  |       |           |          | +             | -             | -+            | -     | +-            | -          | -    | -             |                   | +-             | +         | +      | ┢              | +       | H         | $\vdash$  | none checked                 |
| 137             | Portage Municipal Airport                             | (blank)                              | (blank)   |       |           |          | +             | -             | +             | +     | +             |            |      | -             |                   | ╈              | +         | +      | +              | +-      | ⊢┦        | $\square$ | none checked                 |
| 148             | Twin County Airport, MI                               | Manufacturing engine parts, pistor   | pistons, castings   |       |           |          | +             | -             | +             |       |               | 1          |      | -             | 1                 | 1              | +         | +      | +              | +       | H         | $\square$ |                              |
| 110             | Carter Pulaski Airport                                | none                                 | (blank)   |       |           |          |               |               |               |       |               |            |      |               |                   |                | -         |        | +              | +       | H         | $\square$ | none checked                 |
| 106             | Amery Municipal Airport                               | We have occasional flights coming    | (blank)   |       |           |          |               |               | -             |       | 1             |            |      |               | 1                 | 1              | +         | +      | +              | +       | H         | $\square$ |                              |
| 120             | Gogebic-Iron County Airport, MI                       | plastic injection molding, mold mal  | automobile parts, manufacturing parts and supplies, medical | 1     | 1         |          | 1             |               | 1             |       | 1             | 1          | 1    |               | 1                 | 1              | 1         |        | $\square$      |         | П         | $\square$ |                              |
| 109             | Burlington Municipal Airport                          | (blank)                              | (blank)   |       |           |          |               |               |               |       |               |            |      |               |                   |                |           |        | Γ              |         |           |           | none checked                 |
| 118             | Fond du Lac County Airport                            | na                                   | na  |       |           |          |               |               |               |       |               |            |      |               |                   |                |           |        |                |         |           | $\square$ | none checked                 |
| 143             | Shell Lake Municipal Airport                          | (blank)                              | (blank)   |       |           |          | Ţ             |               | T             |       |               |            |      | T             |                   |                |           |        |                |         |           |           | "medical patients"           |
| 146             | Taylor County Airport                                 | transportation                       | plastic parts: dashboards, plastic knobs, parts             |       |           |          |               |               |               |       | 1             |            |      |               | 1                 |                |           |        |                |         | $\square$ | $\square$ |                              |
| 149             | Verona Air Park                                       | (blank)                              | (blank)   |       |           |          |               |               |               |       |               |            |      |               |                   | 1              |           |        | ┶              | ┶       | $\square$ | $\square$ |                              |
| 121             | John F. Kennedy Memorial Airport                      | none                                 | none  | 1     |           |          |               | _             |               |       |               |            |      |               |                   |                | _         |        | ┶              | ┶       | $\square$ | $\square$ |                              |
| 127             | Langlade County Airport                               | (blank)                              | (blank)   |       |           |          | _             | $\rightarrow$ | -             | -     | _             |            |      | _             |                   | ╇              | _         | _      | ╇              | ╇       | $\square$ | $\square$ | none checked                 |
| 135             | Park Falls Municipal Airport                          | medical                              | medicine/organs (http://www.inite.com                       |       |           |          | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | -     | _             |            |      | _             |                   | ╇              | +         | +      | ╄              | ╇       | $\square$ | $\square$ | "nospital"                   |
| 141             | Shawano Municipal Airport                             | (DIANK)                              | (Diank)   |       |           | $\vdash$ | +             | +             | +             | +     | +             | $ \square$ |      | -+            | _                 | ╋              | +         | +      | ┢              | ╋       | ⊢┦        | $\square$ | none checked                 |
| 105             | Alexander Field-South Wood County Airport             | (blank)                              | (DidRK)<br>(blank)  |       | $\vdash$  | $\vdash$ | +             | +             | +             | +     | +             | +          |      | $\rightarrow$ | +                 | +              | +         | +      | +              | +-      | ⊢┦        | $\vdash$  | none checked                 |
| 114             | Cumpenand Municipal Airport                           | (blank)                              | (blank)   |       | $\vdash$  | $\vdash$ | +             | +             | +             | +     | +             | +          |      | -+            | +                 | ╋              | +         | +      | ╋              | +-      | ⊢┦        | ⊢⊣        | none checked                 |
| 126             | Lakaland Airport /Noble E. Lee Memorial Field         | (blank)                              | (blank)   |       |           |          | -             | -             | -             |       | +             |            |      | -             |                   | +              | +         | +      | ┢              | +       | $\vdash$  | $\vdash$  | none checked                 |
| 15/             | West Bend Municipal Airport                           | graphic overlays                     | automobile parts  |       | 1         | $\vdash$ | +             | 1             | +             | 1     | 1             | +          | 1    | +             | 1 1               | 1              | ╋         | ╋      | $+_1$          | +       | ⊢┦        |           |                              |
| 117             | Door County Cherryland Airport                        | (blank)                              | (blank)   |       |           |          | +             | -             | +             | -     | Ť             |            | -    | +             | ·   *             | ╧              | +         | +      | ÷              | +       | ⊢┦        | Ē         | none checked                 |
| 123             | Kenosha Regional Airport                              | na                                   | na  |       |           |          | +             | +             | +             | +     | +             |            |      | -+            | +                 | 1              | +         | +      | +              | +       | H         | $\dashv$  |                              |
| 133             | Neillsville Municipal Airport                         |                                      |   |       |           |          |               |               |               |       |               |            |      |               |                   |                |           |        | F              | T       |           |           |                              |
| 136             | Platteville Municipal Airport                         |                                      |   |       |           |          |               |               |               |       |               |            |      |               |                   | 1              |           |        |                |         |           |           |                              |
| 151             | Washington Island Airport                             |                                      |   |       |           |          |               |               |               |       |               |            |      |               |                   |                |           |        |                |         |           |           |                              |
| 139             | Rhinelander-Oneida County Airport                     | no answer provided                   | no answer provided  |       |           |          |               |               |               |       |               |            |      |               |                   | Т              |           |        |                |         |           | $\square$ | no answer provided           |

|                 | Appendix B: Air Cargo Survey, 2010                    | Q10  | Q10a                     | a11  | a12   | q12a                                  | q13   | g13a                                       | a14                               |
|-----------------|---|--|--------------------------|--|---|---------------------------------------|---|--|-----------------------------------|
|                 | Airport   | Medical<br>supplies<br>frequency   | Medical<br>supplies type | Donor flight<br>frequency  | Cargo change, last 5 years  | Cargo change, reason                  | Cargo change, next 5<br>years   | Cargo expect, reason                       | Current<br>facilities<br>adequate |
| Value<br>labels | Global value labels: dk=don't know, na=not applicable | 1=daily, 2=weekly,<br>3=monthly,<br>4=quarterly,<br>5=annually,<br>6=never |                          | 1=daily, 2=weekly,<br>3=monthly,<br>4=quarterly,<br>5=annually,<br>6=never | 1=decreased a lot, 2=decreased<br>somewhat, 3=decreased a little,<br>4=no change, 5=increased a little,<br>6=increased somewhat, 7=increased<br>a lot |                                       | 1=decrease a lot, 2=decrease<br>somewhat, 3=decrease a little,<br>4=no change, 5=increase a little,<br>6=increase somewhat, 7=increase<br>a lot |  | 1=Yes, 2=No                       |
| 155             | Wittman Regional Airport                              | 6  | (blank)                  | 5  | 3   | (blank)                               | 5   | (blank)                                    | 1                                 |
| 119             | General Mitchell International Airport                | na   | na                       | na   | 2   | (blank)                               | 3   | (blank)                                    | 1                                 |
| 107             | Austin Straubel International Airport                 | dk   | (blank)                  | dk   | 2   | reflection of economy                 | 4   | Air Cargo activity is based on local       | 1                                 |
| 142             | Sheboygan County Memorial Airport                     | (blank)  | (blank)                  | (blank)  | (blank)   | (blank)                               | (blank)   | (blank)                                    | 1                                 |
| 104             | Waukesha County Airport/Crites Field                  | 1  | (blank)                  | 3  | 5   | increase of medical supply transport  | 5   | increase in medical related transports     | 1                                 |
| 125             | La Crosse Municipal Airport                           | (blank)  | (blank)                  | (blank)  | 4   | (blank)                               | 4   | (blank)                                    | 1                                 |
| 116             | Dodge County Airport                                  | 6  | (blank)                  | 6  | 2   | (blank)                               | 5   | (blank)                                    | 1                                 |
| 132             | Middleton Municipal - Morey Field                     | 4  | breast milk              | 6  | 1   | dk                                    | 4   | (blank)                                    | 1                                 |
| 152             | Watertown Municipal Airport                           | 5  | (blank)                  | 5  | 2   | (blank)                               | 5   | (blank)                                    | 2                                 |
| 144             | Southern Wisconsin Regional Airport                   | (blank)  | dk                       | (blank)  | 1   | general motors closed its local plant | 5   | economic recovery should result in more    | 1                                 |
| 128             | Lawrence J. Timmerman Field                           | na   | na                       | na   | na  | na                                    | na  | na   | na                                |
| 115             | Dane County Regional Airport                          | (blank)  | (blank)                  | (blank)  | 2   | DHL ceased operations                 | (blank)   | (blank)                                    | 1                                 |
| 134             | New Richmond Regional Airport                         | 3  | (blank)                  | 4  | 3   | bad economy                           | 6   | better economy                             | 1                                 |
| 113             | Chippewa Valley Regional Airport                      | 2  | (blank)                  | 4  | 2   | known shipper requirements, less      | 4   | (blank)                                    | 1                                 |
| 108             | Baraboo-Wisconsin Dells Airport                       | 6  | (blank)                  | 5  | 3   | dk                                    | 6   | Runway extended past 5000'                 | 1                                 |
| 103             | Rice Lake Regional Airport - Carl S Field             | 1  | (blank)                  | 6  | 6   | new businesses                        | 6   | new businesses                             | 1                                 |
| 153             | Wausau Downtown Airport                               | 6  | (blank)                  | 3  | (blank)   | (blank)                               | 4   | (blank)                                    | (blank)                           |
| 140             | Richard I. Bong Airport                               | 6  | na                       | 6  | 3   | (blank)                               | dk  | (blank)                                    | 1                                 |
| 122             | John H. Batten Airport                                | 6  | (blank)                  | 4  | (blank)   | Increased somewhat first four years,  | 6   | economy will come back to some extent      | 1                                 |
| 102             | Outgamie County Regional Airport                      | 1  | pharmacy                 | 6  | 7   | (blank)                               | 5   | (blank)                                    | 1                                 |
| 130             | Marshfield Municipal Airport - Roy Shwery             | 1  | sometimes daily, so      | 1  | 5   | Donor flights have increased, cargo   | 5   | Marshfield has a great hospital donor &    | 1                                 |
| 124             | L.O. Simenstad Municipal Airport                      | 4  | prthopedic products      | 5  | 4   | (blank)                               | 6   | increase in manufacturing & aircraft       | 1                                 |
| 111             | Central Wisconsin Airport                             | 6  | na                       | 5  | 1   | more ground transportation options    | 5   | improving economy                          | 1                                 |
| 101             | Iowa County Airport                                   | 2  | "no response"            | 6  | 4   | (blank)                               | 5   | more people ordering products by mail      | 1                                 |
| 147             | Tri-County Regional Airport                           | 6  | (blank)                  | 6  | 1   | UPS used to deliver here, now they go | 4   | (blank)                                    | 1                                 |
| 129             | Manitowoc County Airport                              | 6  | (blank)                  | 6  | 5   | Promotional effort                    | 5   | Promotional effort                         | 1                                 |
| 145             | Stevens Point Municipal Airport                       | (blank)  | dk                       | 5  | 1   | UPS dissolved the route               | 5   | increase in the economy                    | 1                                 |
| 112             | Chetek Municipal - Southworth Airport                 | 6  | (blank)                  | 6  | 4   | (blank)                               | 5   | local contractor for a defense department  | 1                                 |
| 138             | Price County Airport                                  | 5  | manufactured             | 4  | 2   | economic                              | 6   | hope the economics change in a good way    | 1                                 |
| 131             | Menomonie Municipal Airport                           | 6  | (blank)                  | 6  | 4   | (blank)                               | 4   | (blank)                                    | 1                                 |
| 137             | Portage Municipal Airport                             | 6  | (blank)                  | 6  | 4   | (blank)                               | 4   | (blank)                                    | 1                                 |
| 148             | Twin County Airport, MI                               | 5  | organs                   | 5  | 3   | recession                             | 6   | rebound                                    | 1                                 |
| 110             | Carter Pulaski Airport                                | 6  | (blank)                  | 5  | 4   | (blank)                               | 4   | (blank)                                    | 2                                 |
| 106             | Amery Municipal Airport                               | 5  | (blank)                  | 4  | 4   | (blank)                               | 5   | (blank)                                    | 1                                 |
| 120             | Gogebic-Iron County Airport, MI                       | 2  | dk                       | 5  | 5   | business growth                       | 5   | business growth                            | 1                                 |
| 109             | Burlington Municipal Airport                          | (blank)  | (blank)                  | (blank)  | (blank)   | (blank)                               | (blank)   | (blank)                                    | (blank)                           |
| 118             | Fond du Lac County Airport                            | 6  | (blank)                  | 4  | 1   | economy                               | 4   | (blank)                                    | 1                                 |
| 143             | Shell Lake Municipal Airport                          | (blank)  | (blank)                  | 6  | 2   | reduced activity - poor runway        | 4   | improved runway                            | 1                                 |
| 146             | Taylor County Airport                                 | 6  | (blank)                  | 6  | 1   | market/economy - main shipper         | 5   | end of recession. Activity at the closed   | 1                                 |
| 149             | Verona Air Park                                       | 6  | (blank)                  | 6  | 4   | (blank)                               | 5   | (blank)                                    | 1                                 |
| 121             | John F. Kennedy Memorial Airport                      | D (hts rate)   | (hlash)                  |  | 4   | (blank)                               | 5   | we're trying to drum up an industrial park | 1                                 |
| 127             | Langlade County Airport                               | (blank)  | (blank)                  | (blank)  | 4   | (blank)                               | 5   | (blank)                                    | 1                                 |
| 135             | Park Falls Municipal Airport                          | 4<br>(blank)   | medicine/organs          | 5  | 1   | economy                               | 5   | economy/industrial growth                  | 2                                 |
| 141             | Shawano Municipal Airport                             | (Diarik)   | UK (Islausla)            | 4  | 3   | (blank)                               | 4   | (blank)                                    | 1                                 |
| 105             | Alexander Field-South Wood County Airport             | 6  | (biank)                  | 5  | 1   | local economy                         | 4   | (blank)                                    | 1                                 |
| 114             | Cumperland Municipal Airport                          | b<br>(blank)   | (biank)                  | b<br>(blank)   | 4<br>(blask)  | (blank)                               | 4   | (blank)                                    | 1                                 |
| 150             | viroqua Municipal Airport                             | (blank)  |                          | (biank)  | (Diank)   | (blank)                               | 4   | (blank)                                    |                                   |
| 120             | Lakeland Airport/Noble F. Lee Memorial Field          | 4<br>C   | (blank)                  | 4  | 4   | (blank)                               | 4<br>F  | (Dlank)                                    | 1<br>2                            |
| 154             | West Bend Municipal Airport                           | 0<br>6   | (bidfik)                 | 4  | 2   | economy                               | 0   | when the economy improves                  | 2                                 |
| 11/             | Voor County Cherryland Airport                        | 0  | (blank)                  | 5  | 4   | (blank)                               | 4   | (blank)                                    | 1                                 |
| 123             |   | 4  | (Dialik)                 | 5  | 4   | (blank)                               | 4   | (Diank)                                    | 1                                 |
| 135             | Nenisvine iniunicipal Airport                         |  |                          |  |   |                                       |   |  |                                   |
| 150             | Washington Island Airport                             |  |                          |  |   |                                       |   |  |                                   |
| 130             | Rhinelander-Oneida County Airport                     | no answer provid   | no answer provider       | no answer provide  | no answer provided  | no answer provided                    | no answer provided  | no answer provided                         | no answer pro                     |

|        | Appendix B: Air Cargo Survey, 2010                    | d14a               | a15           | d15a                 |
|--------|---|--------------------|---------------|----------------------|
|        |   | q1+0               | 415           | qisu                 |
|        |   |                    |               |                      |
|        |   | Current            | Facilities    |                      |
|        |   | improvements       | adequate      | Improvements         |
|        | Airport   | required           | future        | required future      |
|        |   |                    |               |                      |
| Value  | Global value labels: dk=don't know, na=not applicable |                    | 1=Yes. 2=No   |                      |
| labels | · · · · · · · · · · · · · · · · · · ·                 |                    |               |                      |
|        |   |                    |               |                      |
| 155    | Wittman Regional Airport                              | (blank)            | 1             | (blank)              |
| 119    | General Mitchell International Airport                | (blank)            | 1             | (blank)              |
| 107    | Austin Straubel International Airport                 | We don't have a    | yes           | (blank)              |
| 142    | Sheboygan County Memorial Airport                     | (blank)            | 1<br>1        | dk                   |
| 104    | La Crosse Municipal Airport                           | (blank)            | 1             | (blank)              |
| 116    | Dodge County Airport                                  | (blank)            | 1             | (blank)              |
| 132    | Middleton Municipal - Morey Field                     | (blank)            | 1             | (blank)              |
| 152    | Watertown Municipal Airport                           | Longer runway      | 2             | Longer runway        |
| 144    | Southern Wisconsin Regional Airport                   | (blank)            | 2             | see alp              |
| 128    | Lawrence J. Timmerman Field                           | na                 | na            | na                   |
| 115    | Dane County Regional Airport                          | (blank)            | 1             | (blank)              |
| 134    | New Richmond Regional Airport                         | (blank)            | 1             | (blank)              |
| 113    | Chippewa Valley Regional Airport                      | (blank)            | 1             | (blank)              |
| 108    | Baraboo-Wisconsin Dells Airport                       | (blank)            | 1             | (blank)              |
| 103    | Rice Lake Regional Airport - Carl S Field             | (blank)            | 1             | (blank)              |
| 153    | Wausau Downtown Airport                               | (blank)            | (blank)       | (blank)              |
| 140    | Richard I. Bong Airport                               | (blank)            | 1             | (blank)              |
| 122    | John H. Batten Airport                                | (blank)            | 1             | airport in beautiful |
| 102    | Marshfield Municipal Airport Roy Shwary               | (blank)            | 2             | (Diank)              |
| 12/    | I O Simenstad Municipal Airport                       | (blank)            | 2             | new bangars to       |
| 111    | Central Wisconsin Airport                             | (blank)            | 1             | (blank)              |
| 101    | Iowa County Airport                                   | (blank)            | 2             | larger ramp area     |
| 147    | Tri-County Regional Airport                           | (blank)            | 1             | (blank)              |
| 129    | Manitowoc County Airport                              | More hangar space  | 2             | More hangar,         |
| 145    | Stevens Point Municipal Airport                       | none               | 1             | non                  |
| 112    | Chetek Municipal - Southworth Airport                 | (blank)            | 1             | (blank)              |
| 138    | Price County Airport                                  | (blank)            | 1             | (blank)              |
| 131    | Menomonie Municipal Airport                           | (blank)            | 1             | (blank)              |
| 137    | Portage Municipal Airport                             | Our airport is     | 2             | (blank)              |
| 148    | Twin County Airport, Mi                               | (blank)            | 2             | (blank)              |
| 106    | Carter Pulaski Airport                                | (blank)            | 1             | (black)              |
| 120    | Gogebic-Iron County Airport MI                        | (blank)            | 1             | (blank)              |
| 109    | Burlington Municipal Airport                          | (blank)            | (blank)       | (blank)              |
| 118    | Fond du Lac County Airport                            | (blank)            | 1             | (blank)              |
| 143    | Shell Lake Municipal Airport                          | (blank)            | 1             | (blank)              |
| 146    | Taylor County Airport                                 | (blank)            | 1             | (blank)              |
| 149    | Verona Air Park                                       | (blank)            | 2             | (blank)              |
| 121    | John F. Kennedy Memorial Airport                      | dedicated hangar   | 1             | dedicated hangar     |
| 127    | Langlade County Airport                               | (blank)            | 1             | (blank)              |
| 135    | Park Falls Municipal Airport                          | longer runway      | 2             | longer               |
| 141    | Shawano Municipal Airport                             | (blank)            | 1             | (blank)              |
| 105    | Alexander Field-South Wood County Airport             | (blank)            | 1             | (blank)              |
| 114    | Cumpenand Wunicipal Airport                           | (blank)            | 2             | (blank)              |
| 126    | Lakeland Airport/Noble F. Lee Memorial Field          | (blank)            | 1             | (hlank)              |
| 154    | West Bend Municipal Airport                           | Longer primary     | 2             | Longer runway        |
| 117    | Door County Cherryland Airport                        | loading/unloading  | (blank)       | strengthen runwav    |
| 123    | Kenosha Regional Airport                              | (blank)            | 1             | (blank)              |
| 133    | Neillsville Municipal Airport                         |                    |               |                      |
| 136    | Platteville Municipal Airport                         |                    |               |                      |
| 151    | Washington Island Airport                             |                    |               |                      |
| 139    | Rhinelander-Oneida County Airport                     | no answer provided | no answer pro | no answer provided   |

#### **APPENDIX C**

# Wisconsin Air Cargo Survey

Please think about air cargo operations at the airport. Air cargo includes freight, package express, bulk and mail, but does <u>not</u> include agricultural applications, such as pesticides carried by agricultural applicators.

| 1. | In 2008, on average per we  | ek, how many flights in tota   | arrived at and         | d departed from the ai                                   | rport?   |  |  |  |  |  |
|----|---|--|------------------------|--|--|--|--|--|--|--|
|    | Arriving:   | flights per weeks  | Departing:             | flights  | per week   |  |  |  |  |  |
| 2. | In 2008, on average per we  | ek, how many flights carryi  | ng <u>cargo</u> arrive | ed at and departed from                                  | n the airport?   |  |  |  |  |  |
|    | Arriving:   | cargo flights per week   | Departing:             | cargo  | flights per week   |  |  |  |  |  |
| 3. | In 2008, 2007, and 2006, ho   | w many <u>tons</u> of air cargo w  | as carried by a        | rriving and departing                                    | flights at the airport each year?  |  |  |  |  |  |
|    | Arriving:   tons     Arriving:   tons     Arriving:   tons     3a   Does this tonnage in  | s cargo, 2008Departings cargo, 2007Departings cargo, 2006Departingclude cargo carried as belly | g:<br>g:<br>g:         | tons cargo, 2008<br>tons cargo, 2007<br>tons cargo, 2006 | Note: If you provide your<br>cargo weight in pounds rather<br>than the requested <u>tons</u> , please<br>make a note of that. Thank you! |  |  |  |  |  |
| 4. | <ul> <li>4. Including yourself, in 2008, how many full-time and part-time workers were employed by the airport?</li> <li>Full-time: Part-time: Part-time:</li> <li>4a. What was the total annual 2008 airport payroll for these airport employees? \$</li> <li>4b. Thinking of all hours worked by workers employed by the airport in 2008, on average, about how many hours per week were dedicated to supporting air cargo operations? If tasks such as maintenance and security were completed by airport employees, please include these hours apportioned to air cargo as appropriate. Hours per week</li> </ul> |  |                        |  |  |  |  |  |  |  |
| 5. | 5. Cargo carried by air is usually delivered or picked up at the airport by ground.         In 2008, on average per week, how many trucks carrying cargo arrived at and departed from the airport?         Arriving:       cargo trucks per week         Departing:       cargo trucks per week   |  |                        |  |  |  |  |  |  |  |
| 6. | In 2008, what was the dolla<br>6a. How did you estimate   | r value of cargo shipped th<br>this value?   | rough the airpo        | ort? \$  |  |  |  |  |  |  |

7. Cargo Shipping Companies—This question asks about companies carrying cargo by air—these could be <u>major integrated shippers</u> such as UPS and Fed Ex, <u>commercial passenger lines</u> carrying cargo, <u>general aviation operations</u>, or <u>other</u> carriers. We may contact cargo shipping companies with a follow-up survey. Please be as thorough as possible; if you do not know an answer, give your best estimate.

In 2008, what companies flew air cargo into or out of your airport? Please provide company name, contact information, average number of cargo flights arriving and departing the airport per week, company type, aircraft used, and your best estimate on their number of full-time and part-time employees servicing air cargo operations at the airport.

| Air cargo shipping company<br>name | Contact name and phone<br>number | Cargo flights<br>per week<br>arriving and<br>departing, on<br>average | Company type  | Aircraft<br>used for<br>cargo    | Number of company<br>employees servicing<br>air cargo operations<br>at airport, <u>not</u><br>including pilots |
|------------------------------------|----------------------------------|---|---|----------------------------------|--|
| Example:<br>ABC Shipping Company   | Fred Smith<br>608-999-9999       | Arriving = <u>10</u><br>Departing= <u>20</u>                          | <ul> <li>Major integrated</li> <li>Commercial passenger</li> <li>General Aviation</li> <li>Other</li> </ul> | □ Jet<br>□ Turboprop<br>⊠ Piston | Full-time = <u>4</u><br>Part-time = <u>2</u>   |
|                                    |                                  | Arriving =<br>Departing=  | <ul> <li>Major integrated</li> <li>Commercial passenger</li> <li>General Aviation</li> <li>Other</li> </ul> | □ Jet<br>□ Turboprop<br>□ Piston | Full-time =<br>Part-time =   |
|                                    |                                  | Arriving =<br>Departing=  | <ul> <li>Major integrated</li> <li>Commercial passenger</li> <li>General Aviation</li> <li>Other</li> </ul> | □ Jet<br>□ Turboprop<br>□ Piston | Full-time =<br>Part-time =   |
|                                    |                                  | Arriving =<br>Departing=  | <ul> <li>Major integrated</li> <li>Commercial passenger</li> <li>General Aviation</li> <li>Other</li> </ul> | □ Jet<br>□ Turboprop<br>□ Piston | Full-time =<br>Part-time =   |
|                                    |                                  | Arriving =<br>Departing=  | <ul> <li>Major integrated</li> <li>Commercial passenger</li> <li>General Aviation</li> <li>Other</li> </ul> | □ Jet<br>□ Turboprop<br>□ Piston | Full-time =<br>Part-time =   |
|                                    |                                  | Arriving =<br>Departing=  | <ul> <li>Major integrated</li> <li>Commercial passenger</li> <li>General Aviation</li> <li>Other</li> </ul> | □ Jet<br>□ Turboprop<br>□ Piston | Full-time =<br>Part-time =   |

Please attach additional pages as necessary

| 8. Cargo Originators—This question asks about the businesses and organizations that ship their goods by air. We may contact cargo originators with a follow-up survey. Please be as thorough as possible; if you do not know an answer, give your best estimate. |   |  |  |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|--|--|--|
| In 2008, what <u>businesses or</u>   | <u>corganizations produced the cargo</u> shipped thro   | ugh the airport? Please provide the cargo originator's name, |  |  |  |  |  |  |  |  |  |
| industry type, and the types of  | industry type, and the types of goods they shipped through the airport.   |  |  |  |  |  |  |  |  |  |  |
| Cargo originator name  | Cargo originator name Industry type Types of goods shipped through the type Type Types of goods shipped through the type Type Type Types of goods shipped through the type Type Type Type Type Type Type Type T |  |  |  |  |  |  |  |  |  |  |
| Example:   | Transmentation Francisco et Marco factorio a  |  |  |  |  |  |  |  |  |  |  |
| A-1 Manufacturing  | Transportation Equipment Manufacturing  | Automobile parts, documents                                  |  |  |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |  |  |  |
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|  |   |  |  |  |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |  |  |  |

Please attach additional pages as necessary

| 9. In 2008, which industries shipped goods through the airport?          |   |                         |                |   |            |  |  |  |  |  |
|--|---|-------------------------|----------------|---|------------|--|--|--|--|--|
| Agriculture, Forestry Support Services     Food     Buseress and Tabases | O Plastics and Rubl<br>O Fabricated Metal | ber Products<br>Product |                | O Postal Service<br>O Couriers and Messengers |            |  |  |  |  |  |
| O Apparel  | $\bigcirc$ Computer and El                | ectronic Product        |                | O Educational Services                        |            |  |  |  |  |  |
| O Leather and Allied Product   | O Electrical Equip                        | nent, Appliance, and    | l Component    | O Arts, Entertainment, and R                  | lecreation |  |  |  |  |  |
| Wood Product   | Aircraft/Automol                          | bile parts              |                | O Other;                                      |            |  |  |  |  |  |
| O Printing and Related Support Activities                                | O Miscellaneous M                         | anufacturing            |                | specify:                                      |            |  |  |  |  |  |
| 10 In 2009 how often were Medical av                                     | Chemical O Wholesalers                    |                         |                |   |            |  |  |  |  |  |
| 10. In 2008, now often were Medical st                                   | ipplies snipped thr                       | ougn the airpo          | rt:            |   |            |  |  |  |  |  |
|  |   | Annuarry                | Never          |   |            |  |  |  |  |  |
|  | $\cup$                                    | $\bigcirc$              |                |   |            |  |  |  |  |  |
| 10a. In 2008, what types of medical                                      | supplies were ship                        | ped through th          | ne airport?    |   |            |  |  |  |  |  |
| 11. In 2008, how often were there orga                                   | n donor flights thr                       | ough the airpo          | rt?            |   |            |  |  |  |  |  |
| Daily Weekly Month   | nly Quarterly                             | Annually                | Never          |   |            |  |  |  |  |  |
|  | 0   | $\bigcirc$              | $\bigcirc$     |   |            |  |  |  |  |  |
| 12. In the last five years how has the le                                | vel of air cargo act                      | tivity at the air       | port changed   | !?  |            |  |  |  |  |  |
| Decreased Decreased Decrea   | sed No                                    | Increased               | Increased      | Increased                                     |            |  |  |  |  |  |
| a lot somewhat a litt  | le change                                 | a little                | somewhat       | a lot   |            |  |  |  |  |  |
|  | $\bigcirc$                                | $\bigcirc$              | $\bigcirc$     | $\bigcirc$                                    |            |  |  |  |  |  |
| 12a. Why did this change in air car                                      | go activity occur?                        |                         |                |   |            |  |  |  |  |  |
| 13. In the <u>next five years</u> , how do you e                         | expect the level of a                     | ir cargo activit        | ty at the airp | ort to change?                                |            |  |  |  |  |  |
| Decrease Decrease Decre  | ase No                                    | Increase                | Increase       | Increase                                      |            |  |  |  |  |  |
| a lot somewhat a litt  | le change                                 | a little                | somewhat       | a lot   |            |  |  |  |  |  |
|  | $\bigcirc$                                |                         | <u> </u>       | 0   |            |  |  |  |  |  |
| 13a. Why do you expect this change                                       | e in air cargo activi                     | ity?                    |                |   |            |  |  |  |  |  |
| 14. Are current airport facilities adequ                                 | ate to handle the c                       | current amount          | t of air cargo | activity? O Yes                               | O No       |  |  |  |  |  |
| 14a. What improvements are requi   | red?                                      |                         |                |   |            |  |  |  |  |  |
| 15. Are current airport facilities adequ                                 | ate to handle futu                        | re air cargo act        | ivity?         | Yes O <sub>No</sub>                           |            |  |  |  |  |  |
| 15a. What improvements are requi   | 15a. What improvements are required?      |                         |                |   |            |  |  |  |  |  |

Thank you! Please return your survey in the postage paid envelope provided, to UWSC, 630 West Mifflin #B174, Madison, WI 53703

|         |                           |                        | Cargo    | Cargo      | Shipper    | Aircraft used | Full-   | Part-   |            |
|---------|---------------------------|------------------------|----------|------------|------------|---------------|---------|---------|------------|
| Case ID | Shipping Co. Name         | Contact Name           | Arrivals | Departures | types      | for Cargo     | Time    | Time    | NOTES      |
|         |                           | Chip Zens 414-744-     |          |            |            |               |         |         |            |
|         | Freight Runners Express   | 5525 / UPS 608-935-    |          |            | general    |               |         |         |            |
| 101     | Inc. / UPS                | 5125                   | 5        | 5          | aviation   | Turboprop     | 2       | (blank) | pretest    |
|         |                           |                        |          |            | general    |               |         |         | pretest-Ag |
| 101     | Agricair Inc LLC          | (blank)                | 0.4      | 0.4        | aviation   | Turboprop     | 2       | (blank) | applicator |
|         |                           |                        |          |            | general    |               |         |         | pretest-Ag |
| 101     | AL's Aerial Spraying      | Michael Schiffer       | 0.4      | 0.4        | aviation   | Turboprop     | 2       | (blank) | applicator |
| 102     | Federal Express           | Scott                  | 5        | 5          | Other      | Jet           | 53      | 38      | pretest    |
| 102     | CSA Air, Inc.             | (blank)                | (blank)  | (blank)    | (blank)    | (blank)       | 1       | (blank) | pretest    |
| 102     | Freight Runners           | (blank)                | 5        | 5          | Other      | Turboprop     | 1       | (blank) | pretest    |
|         |                           |                        |          |            | commerical |               |         |         |            |
| 102     | Delta / Northwest         | (blank)                | (blank)  | (blank)    | passenger  | Jet           | (blank) | (blank) | pretest    |
|         |                           |                        |          |            | major      | Turboprop,    |         |         |            |
| 103     | UPS, Bemidji Aviation     | Owner, 218-715-1880    | 6        | 6          | integrated | Piston        | 2       | (blank) | pretest    |
|         |                           | Steve Dennis, 715-458- |          |            | general    |               |         |         |            |
| 103     | Rice Lake Air             | 4401                   | 1        | 1          | aviation   | Turbroprop    | 2       | (blank) | pretest    |
|         |                           |                        |          |            |            |               |         |         |            |
| 103     | Other/Misc. 135 charter   |                        | 3        | 3          | (blank)    | Turbroprop    | 3       | (blank) | pretest    |
|         |                           | Tracy Schoenrock 920-  |          |            | general    |               |         |         |            |
| 104     | PaccAir                   | 410-1472               | 4        | 4          | aviation   | piston        | 0       | 0       |            |
| 105     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)    | (blank)       | (blank) | (blank) |            |
| 106     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)    | (blank)       | (blank) | (blank) | "none"     |
|         |                           |                        |          |            | major      |               |         |         |            |
| 107     | Only UPS - on contract    | don't have             | 5        | 5          | integrated | Piston        | 0       | 0       |            |
|         |                           |                        |          |            |            |               |         |         |            |
|         | Frieght RunnersPrivate    |                        |          |            |            |               |         |         |            |
|         | Courier Service - carries |                        |          |            |            |               |         |         |            |
|         | checks for banks called   |                        |          |            | general    |               |         |         |            |
| 107     | Freight Runner            | don't have             | 12       | 12         | aviation   | Piston        | 0       | 0       |            |
|         | Freight Runners Express   |                        |          |            |            |               |         |         |            |
| 108     | (For UPS)                 | 800-776-5525           | 5        | 5          | other      | piston        | 1       | 0       |            |
| 109     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)    | (blank)       | (blank) | (blank) |            |
| 110     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)    | (blank)       | (blank) | (blank) |            |

|         |                         |                        | Cargo      | Cargo      | Shipper    | Aircraft used | Full-   | Part-     |                  |
|---------|-------------------------|------------------------|------------|------------|------------|---------------|---------|-----------|------------------|
| Case ID | Shipping Co. Name       | Contact Name           | Arrivals   | Departures | types      | for Cargo     | Time    | Time      | NOTES            |
|         | Freight Runners Express | Chrs Zens, 1-800-776-  |            |            | general    |               |         |           |                  |
| 111     | Inc.                    | 5525                   | 11         | 11         | aviation   | Turboprop     | 2       | (blank)   |                  |
|         |                         | Jo Anne Manowarl?,     |            |            | general    |               |         |           |                  |
| 111     | Mountain Air Cargo      | 828-466-6717           | 5          | 5          | aviation   | Turboprop     | 2       | (blank)   |                  |
|         |                         | Diane Jarvis, 906-774- |            |            | general    |               |         |           |                  |
| 111     | CSA Air, Inc.           | 3101                   | 3          | 3          | aviation   | Turboprop     | 0       | (blank)   |                  |
| 112     | (blank)                 | (blank)                | (blank)    | (blank)    | (blank)    | (blank)       | (blank) | (blank)   | "none available" |
|         |                         | Scott Rud 715-835-     |            |            | commerical |               |         |           |                  |
| 113     | Mesaba Airlines         | 6166                   | 2          | 2          | passenger  | Turboprop     | 3       | 5         |                  |
| 114     |                         |                        |            |            |            |               |         |           |                  |
|         |                         | MSN Ramp 608-249-      |            |            | major      |               |         |           |                  |
| 115     | Fed Ex                  | 4181                   | 4          | 4          | integrated | Jet           | (blank) | (blank)   |                  |
|         |                         |                        |            |            | major      |               |         |           |                  |
| 115     | Airborne                | ceased operations      | 4          | 4          | integrated | Jet           | (blank) | (blank)   |                  |
|         |                         |                        |            |            | general    |               |         |           |                  |
|         |                         |                        |            |            | aviation,  |               |         |           |                  |
| 115     | other                   | (blank)                | 9          | 9          | other      | (blank)       | (blank) | (blank)   |                  |
| 116     | (blank)                 | (blank)                | (blank)    | (blank)    | (blank)    | (blank)       | (blank) | (blank)   |                  |
| 117     | (blank)                 | (blank)                | (blank)    | (blank)    | (blank)    | (blank)       | (blank) | (blank)   |                  |
| 118     | (blank)                 | (blank)                | (blank)    | (blank)    | (blank)    | (blank)       | (blank) | (blank)   | "n/a"            |
|         |                         |                        |            |            |            |               | Airport |           |                  |
|         |                         |                        |            |            |            |               | does    | Airport   |                  |
|         |                         |                        |            |            |            |               | not     | does      |                  |
|         |                         |                        |            |            |            |               | track   | not       |                  |
|         |                         | Airport does not track |            |            |            |               | this    | track     |                  |
| 119     | see insert              | this data              | see insert | see insert |            |               | data    | this data |                  |
|         |                         |                        |            |            | major      |               |         |           |                  |
| 120     | UPS                     | 906-932-5955           | 6          | 6          | integrated | Turboprop     | 0       | 2         |                  |
|         |                         | Marti Armata 906-932-  |            |            | commerical |               |         |           |                  |
| 120     | Great Lakes Airlines    | 6057                   | 14         | 14         | passenger  | Turboprop     | 1       | 3         |                  |
| 121     | "none"                  | "none"                 | "none"     | "none"     | "none"     | "none"        | "none"  | "none"    | "none"           |

|         |                           |                        | Cargo    | Cargo      | Shipper  | Aircraft used | Full-   | Part-   |                       |
|---------|---------------------------|------------------------|----------|------------|----------|---------------|---------|---------|-----------------------|
| Case ID | Shipping Co. Name         | Contact Name           | Arrivals | Departures | types    | for Cargo     | Time    | Time    | NOTES                 |
|         |                           |                        |          |            |          |               |         |         | Regular cargo         |
|         |                           |                        |          |            |          |               |         |         | companies I think     |
|         | Regular cargo             |                        |          |            |          |               |         |         | 'Air Cargo' was one   |
|         | companies, I think "Air   |                        |          |            |          |               |         |         | of them. 4-5 per      |
| 122     | Cargo" was one.           | (blank)                | (blank)  | (blank)    | (blank)  | (blank)       | (blank) | (blank) | year.                 |
| 123     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)  | (blank)       | (blank) | (blank) |                       |
|         |                           | General Manager 715-   |          |            | general  |               |         |         |                       |
| 124     | Polaris Industries        | 294-5000               | 0        | 1          | aviation | Turboprop     | 0       | 1       | Shipping Company?     |
|         |                           | Phil Mattison 715-294- |          |            | general  |               |         |         |                       |
| 124     | Core Products             | 2050                   | (blank)  | (blank)    | aviation | Piston        | 0       | 1       | Shipping Company?     |
|         |                           | Jim Kirvida 715-294-   |          |            | general  | Turboprop,    |         |         |                       |
| 124     | Custom Fire               | 2555                   | (blank)  | (blank)    | aviation | Piston        | 0       | 1       | Shipping Company?     |
| 125     | Bemidji Aviation          | 218-751-1880           | 6        | 6          | Other    | Turboprop     | 0       | 0       |                       |
|         |                           |                        |          |            | general  |               |         |         |                       |
| 126     | Freight Runners           | (blank)                | 2        | 2          | aviation | Turboprop     | 0       | 0       |                       |
| 127     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)  | (blank)       | (blank) | (blank) |                       |
|         |                           |                        |          |            |          |               |         |         | "airport does not     |
| 128     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)  | (blank)       | (blank) | (blank) | track this data"      |
| 129     | Royal Air Freight         | (blank)                | <1       | (blank)    | (blank)  | jet           | (blank) | 1       |                       |
| 129     | Grand Air                 | (blank)                | <1       | (blank)    | (blank)  | jet           | (blank) | 1       |                       |
| 129     | All G??ls Air Freight     | (blank)                | <1       | (blank)    | (blank)  | jet           | (blank) | 1       |                       |
|         |                           | 2141 Airport Rd.       |          |            |          |               |         |         |                       |
|         |                           | Waterford MI, 48327,   |          |            | general  | Jet,          |         |         |                       |
| 130     | Royal Air Freight         | 248-666-3070           | 1        | 1          | aviation | Turboprop     | 0       | 0       |                       |
|         |                           |                        |          |            | general  |               |         |         |                       |
| 130     | State of WI donor flights |                        | 1+       | 1+         | aviation | Turboprop     | (blank) | (blank) |                       |
| 131     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)  | (blank)       | (blank) | (blank) | "none"                |
| 132     | UPS                       | (blank)                | (blank)  | (blank)    | (blank)  | (blank)       | (blank) | (blank) | no info provided      |
|         |                           |                        |          |            |          |               |         |         |                       |
| 133     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)  | (blank)       | (blank) | (blank) | No air cargo activity |
| 134     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)  | (blank)       | (blank) | (blank) |                       |
| 135     | (blank)                   | (blank)                | (blank)  | (blank)    | (blank)  | (blank)       | (blank) | (blank) | "none"                |

|                   |  |                               | Cargo    | Cargo      | Shipper                       | Aircraft used                  | Full-        | Part-                   |   |
|-------------------|--|-------------------------------|----------|------------|-------------------------------|--------------------------------|--------------|-------------------------|---|
| Case ID           | Shipping Co. Name                                | Contact Name                  | Arrivals | Departures | types                         | for Cargo                      | Time         | Time                    | NOTES   |
|                   |  |                               |          |            |                               |                                |              |                         |   |
|                   |  |                               |          |            |                               |                                |              |                         | "No air cargo   |
| 136               | (blank)  | (blank)                       | (blank)  | (blank)    | (blank)                       | (blank)                        | (blank)      | (blank)                 | activity at this time"  |
| 137               | (blank)  | (blank)                       | (blank)  | (blank)    | (blank)                       | (blank)                        | (blank)      | (blank)                 |   |
| 138               | (blank)  | (blank)                       | (blank)  | (blank)    | (blank)                       | (blank)                        | (blank)      | (blank)                 |   |
| 139               | No Survey  |                               |          |            |                               |                                |              |                         |   |
| 140               | UPS  | (blank)                       | <1       | <1         | major<br>integrated           | (blank)                        | (blank)      | (blank)                 | Approx ten times<br>per year, when main<br>airport is weathered<br>in, UPS uses this<br>airport. On those<br>occassions, there is<br>one arrival, one<br>departure.   |
| 140               | Fed Ex   | (blank)                       | <1       | <1         | major<br>integrated           | (blank)                        | (blank)      | (blank)                 | Approx ten times<br>per year, when main<br>airport is weathered<br>in, FedEx uses this<br>airport. On those<br>occassions, there is<br>one arrival, one<br>departure. |
| 141               | (blank)  | (blank)                       | (blank)  | (blank)    | (blank)                       | (blank)                        | (blank)      | (blank)                 |   |
| 142               | (blank)  | (blank)                       | (blank)  | (blank)    | (blank)                       | (blank)                        | (blank)      | (blank)                 |   |
| 143               | (blank)  | (blank)                       | (blank)  | (blank)    | (blank)                       | (blank)                        | (blank)      | (blank)                 | "none"  |
| 144<br>144<br>144 | Alliance Air Charter<br>Ameriflight<br>Ameristar | (blank)<br>(blank)<br>(blank) | 3        | 0          | (blank)<br>(blank)<br>(blank) | Jet,<br>Turboprop<br>Turboprop | 2<br>(blank) | 4<br>(blank)<br>(blank) |   |
| 144               | C&M Air  | (blank)                       | 1        |            | (blank)                       | Turboprop                      | (blank)      | (blank)                 |   |
| 144               | Freight Runners                                  | (blank)                       | 2        | 1          | (blank)                       | Turboprop                      | (blank)      | (blank)                 |   |

|         |                          |                       | Cargo    | Cargo      | Shipper    | Aircraft used | Full-   | Part-   |                    |
|---------|--------------------------|-----------------------|----------|------------|------------|---------------|---------|---------|--------------------|
| Case ID | Shipping Co. Name        | Contact Name          | Arrivals | Departures | types      | for Cargo     | Time    | Time    | NOTES              |
|         |                          |                       |          |            |            | Jet,          |         |         |                    |
| 144     | IFL                      | (blank)               | 4        | 1          | (blank)    | Turboprop     | (blank) | (blank) |                    |
| 144     | Priority Air             | (blank)               | 2        | 0          | (blank)    | Piston        | (blank) | (blank) |                    |
|         |                          |                       |          |            |            | Jet,          |         |         |                    |
| 144     | Royal Air                | (blank)               | 2        | 2          | (blank)    | Turboprop     | (blank) | (blank) |                    |
| 144     | Sierra West              | (blank)               | 1        | 0          | (blank)    | Jet           | (blank) | (blank) |                    |
| 144     | Skyway Enterprises       | (blank)               | 3        | 0          | (blank)    | Jet           | (blank) | (blank) |                    |
|         |                          |                       |          |            | general    |               |         |         |                    |
| 145     | Freight Runners          | dk                    | 5        | 5          | aviation   | Turboprop     | 2       | 1       |                    |
|         |                          | Since have closed and |          |            |            |               |         |         |                    |
|         |                          | reopened plant. Old # |          |            |            |               |         |         |                    |
|         | Phillips Plastics        | Medford - 715-748-    |          |            |            |               |         |         |                    |
|         | Corporation (now not     | 2304 (main office in  |          |            | general    | Jet,          |         |         |                    |
| 146     | shipping)                | Phillips, WI)         | 1        | 1          | aviation   | Turboprop     | 0       | 0       |                    |
| 147     | (blank)                  | (blank)               | (blank)  | (blank)    | (blank)    | (blank)       | (blank) | (blank) |                    |
|         |                          |                       |          |            |            |               |         |         |                    |
|         | Freight Runners          | Chip - Owner of co.   |          |            | major      | Turboprop,    |         |         |                    |
| 148     | contracted through UPS   | 414-744-5525          | 5        | 5          | integrated | Piston        | 0       | 0       |                    |
|         | Private charters, often  |                       |          |            |            |               |         |         |                    |
|         | Priority Air Charter out |                       | on-      |            | general    |               |         |         |                    |
| 148     | of Indiana               | on demand             | demand   | on-demand  | aviation   | (blank)       | 0       | 0       |                    |
| 149     | (blank)                  | (blank)               | (blank)  | (blank)    | (blank)    | (blank)       | (blank) | (blank) |                    |
| 150     | (blank)                  | (blank)               | (blank)  | (blank)    | (blank)    | (blank)       | (blank) | (blank) |                    |
| 151     | (blank)                  | (blank)               | (blank)  | (blank)    | (blank)    | (blank)       | (blank) | (blank) |                    |
| 152     | (blank)                  | (blank)               | (blank)  | (blank)    | (blank)    | (blank)       | (blank) | (blank) |                    |
| 153     | (blank)                  | (blank)               | (blank)  | (blank)    | (blank)    | (blank)       | (blank) | (blank) |                    |
|         |                          | Craig Devenport 262-  |          |            | general    | Jet,          |         |         |                    |
| 154     | West Bend Air            | 334-5603              | 1        | 1          | aviation   | Turboprop     | (blank) | (blank) |                    |
|         |                          |                       |          |            |            |               |         |         | Same 2 FT and 5 PT |
|         |                          |                       |          |            |            |               |         |         | employees for all  |
| 155     | Freight Runners          | 414-744-5525          | 1        | (blank)    | (blank)    | Turboprop     | 2       | 5       | shippers?          |
|         |                          |                       |          |            |            |               |         |         | Same 2 FT and 5 PT |
|         |                          |                       |          |            |            |               |         |         | employees for all  |
| 155     | Air Cargo Carriers       | 414-482-1711          | <1       | (blank)    | (blank)    | Turboprop     | 2       | 5       | shippers?          |

#### WisDOT Air Cargo Survey Study Appendix D

|         |                       |              | Cargo    | Cargo      | Shipper | Aircraft used | Full- | Part- |                    |
|---------|-----------------------|--------------|----------|------------|---------|---------------|-------|-------|--------------------|
| Case ID | Shipping Co. Name     | Contact Name | Arrivals | Departures | types   | for Cargo     | Time  | Time  | NOTES              |
|         |                       |              |          |            |         |               |       |       | Same 2 FT and 5 PT |
|         |                       |              |          |            |         |               |       |       | employees for all  |
| 155     | Ameristar Jet Charter | 800-368-5387 | <1       | (blank)    | (blank) | Jet           | 2     | 5     | shippers?          |
|         |                       |              |          |            |         |               |       |       | Same 2 FT and 5 PT |
|         |                       |              |          |            |         |               |       |       | employees for all  |
| 155     | Active Aero/USA Jets  | 800-877-5387 | <1       | (blank)    | (blank) | Jet           | 2     | 5     | shippers?          |

**APPENDIX E** 

# **Economic Value of Air Cargo**

Midwest Aeronautics Office Interviews

## **Midwest Department of Transportation Aeronautics Office**

Representatives from Minnesota, Iowa, Indiana, Illinois, and Michigan Aeronautics Offices were interviewed. The purpose was to discover the types of air cargo information states collect, the source of that information, and how resulting data has been used. Of particular interest was to determine how states calculate the economic value of air cargo operations. Representatives were asked for air cargo study results and asked to share insights on what they had learned about air cargo.

**Minnesota** is the only state to have conducted a state-wide study on air cargo. The study was completed ten years ago, in 1999. Minnesota's economic impact analysis web-calculator allows airports to include air cargo inputs in analyses. Minnesota has plans to conduct a state-wide economic impact analysis and expects to include air cargo inputs in this analysis.

**Iowa and Indiana** have both collected some air cargo data for economic impact studies, but their aim was to determine the economic impact of *all* business activities. Air cargo activities were aggregated with all other economic activity at the airport. Iowa has collected some statewide information on business demand for air cargo. Neither state has plans for an air cargo study in the future.

**Illinois** only collects air cargo information for support of specific infrastructure development. Illinois does not conduct economic impact analyses for its airports, and has not included air cargo components in its past statewide economic impact analyses. Illinois would like to be funded to conduct another state-wide economic impact analysis, and would hope to include air cargo in some capacity.

**Michigan** includes air cargo inputs in the economic impact analyses it does for its smaller airports if the airports provide the information. The airports rarely provide air cargo information.

Other entities—universities and individual airports—have done studies incorporating air cargo information, but DOT representatives reported that they were often not involved with these studies, nor necessarily aware of study details or results.

The biggest, and often only, reported use of air cargo data was for procurement of the cargostipend for infrastructure development. It took probing for state representatives to realize that they did in fact collect some air cargo information from airport tenants, and that they included this information in economic impact analyses. For the most part, air cargo information was collected and aggregated in ways that would make it difficult to isolate economic impacts related solely to air cargo.

## Minnesota Department of Transportation, Office of Aeronautics and Aviation

Minnesota Department of Transportation, Office of Aeronautics and Aviation website: http://www.dot.state.mn.us/aero/avoffice/aviationplanning.html

#### Air Cargo Information

The Minnesota Department of Transportation (MnDOT) does not routinely collect air cargo data. However, Minnesota has conducted the only state-wide air cargo study in the Midwest. Lacking in-house staff, MnDOT hires consultants for air cargo studies. MnDOT staff may not be fluent on the details of data sources and the types of information gathered for each study, but these details can be found in the reports.

...Consultants decide who to talk with... if what they provide us is good and makes sense, we don't worry about this.

Each of the following three studies, completed within the last ten years, include at least some air cargo component. These studies were sponsored or referenced by the Minnesota Department of Transportation, Office of Aeronautics and Aviation. Each study's air cargo components are summarized below.

- 1999 Minnesota Statewide Air Cargo Study
- 2001-- Minneapolis-Saint Paul Air Cargo Study
- 2003—Tier 2 Air Service Study, Minnesota in partnership with Wisconsin

The *Minnesota Statewide Air Cargo Study*<sup>1</sup>, the most recent MnDOT study to focus solely on air cargo, gathered information on each airport's air cargo operations.

The last air cargo study that we did was as a part of the 1999 State System Plan.

The purpose of the study was to <u>estimate future growth in air cargo demand</u> and to indicate <u>facility air cargo upgrade needs</u> at each airport.

The study report details methods and findings. The Airport Survey was a two-page mail survey sent to fixed base operator managers or line managers at 106 airports, with a follow-up telephone survey of 14 key non-responders. The response rate was 54%. The Business Survey was a telephone survey of freight managers or shipping managers at thirty major Minnesota businesses. The response rate was 70%.

<sup>&</sup>lt;sup>1</sup> TAMS Consultants, Inc., *Minnesota Statewide Air Cargo Study*, *Final Report*, January 1999. See Appendix A, page 58-61 for full survey

Economic Value of Air Cargo – Midwest Aeronautics Office Interviews--DRAFT University of Wisconsin Survey Center

The *Airport Survey* asked for:

- names of both local and major cargo operators at the airport, and for each asked for:
  - flights per week,
  - aircraft types,
  - types and quantity of air cargo carried,
  - local businesses served, and the
  - origin and destination for flights.

The *Business Survey* asked about the goods businesses shipped by major operators and/or by local air charter services, asking for:

- names of shipping companies used,
  - frequency of shipper use,
  - size of shipments,
  - types and quantity of goods shipped,
  - airport used, and
  - shipments' origin and destination.

*Both surveys* asked about the:

- adequacy of current airport facilities, the
- existence of international air cargo operations,
- perceptions of air cargo trends over the past five years,
- expectation of air cargo activity in the next ten years, and
- expectation of future international air cargo shipments.

Most survey respondents did <u>not</u> estimate the amount and category of cargo by classification. Therefore, only the <u>total tons of cargo</u> moved could be used in analysis. In addition, due to **limited and suspect data on passenger aircraft belly cargo**, the study only reported <u>cargo carried by cargo-only carriers</u>. This information, total tons moved by all-cargo carriers, served as the baseline from which future air cargo demand was forecast.

While the **2006 State Aviation System Plan** includes air cargo information, MnDOT indicates the information was derived from the 1999 study.

The Metropolitan Airports Commission's **Minneapolis-Saint Paul Air Cargo Study**<sup>2</sup> examined Minneapolis-Saint Paul's (MSP's) air cargo activities to <u>address a decline in air cargo through the MSP airport</u>. The MnDOT representative was unfamiliar with data collection efforts for this airport-specific study, but did know about policy proposals that arose from the study.

<sup>&</sup>lt;sup>2</sup> SITA Logistics Solutions, *Minneapolis-Saint Paul Air Cargo Study*, 2001.

The purpose of this study was to look at air cargo and see if MSP could capture some of the air cargo traffic that was being trucked to Chicago. The study on freight forwarding proposed a regional distribution center for trucks. They wanted to increase access to MSP. ...[Another] proposal was to have another airport for air cargo, a "cargo twin".

Both the regional distribution center and the cargo twin idea were worked on for two to three years, but were not implemented.

A measurement difficulty noted in the MSP Air Cargo Study report,

"It is exceedingly difficult to accurately measure the amount of cargo that is moving in the airline industry. The current procedures are rife with double counting and missed traffic. Moreover, the statistics that are available often measure only throughput at the airport and not the indigenous traffic in the underlying markets."

The Tier 2 Air Service Study of 2003<sup>3</sup> looked at the <u>potential for surrounding airports to handle</u> <u>MSP overflow air traffic</u>. Representatives from MnDOT, MAC, and perimeter communities met to discuss options. Small groups convened to discuss customer air cargo needs and to explore ways to enhance air cargo services at perimeter airports.

The study report identifies trends at tier 2 airports (chapter 3), and considers each airport's potential for increased air cargo traffic; identifying Rochester and St. Cloud as possible air 'cargo twins' (Section 3.8). The air cargo twin idea has not been implemented.

#### **Calculating Economic Impact**

In 2005, the Center for Transportation Studies at the University of Minnesota developed a **web-based economic impact calculator for small and medium-sized airports**<sup>4</sup>. MnDOT no longer conducts economic impact analyses for airports, but makes this tool available on the Office of Aeronautics and Aviation web site.

The report abstract describes the development of the web-based calculator:

"The process involved site visits to 51 airports, meetings with airport managers, Fixed Base Operators (FBO), and Metropolitan council officials, as well as data collection of

<sup>&</sup>lt;sup>3</sup>KRAMER aerotek, Inc.; Ricondo & Assoc., Inc.; and SEH, Inc., *Tier 2 Air Service Study, Minnesota in partnership with Wisconsin*, Technical Report, June 2003.

<sup>&</sup>lt;sup>4</sup> Gartner, William, Daniel Erkkila, Jo Hyunkuk, *Development of a Web-Based Economic Impact Calculator for Small and Medium Size Airports, 2005-19, Final Report.* 

financials from airport sponsors and FBOs. After testing on the calculator was completed, it was transferred to the Mn/DOT Aeronautics server."

#### Airport Economic Impact Calculator website:

http://www.dot.state.mn.us/aero/avoffice/econimpactcalc.html

A noted limitation of the web-based calculator, the standard formula created for estimating all expenditures is based on a survey of fixed base operators that achieved only a 20% response rate<sup>5</sup>.

Users of the web-based economic impact analysis tool *may* include the following air cargo inputs:

- Number of trips per week businesses make to the airport to ship or pick up freight
- Number of miles from business to nearest airport with similar facilities to that airport

Users may also input information on businesses that own hangars and do their own aircraft maintenance, which would include shipping companies operating out of the airport. These inputs include:

- Full-time employees at airport (not including pilots)
- Full-time seasonal employees at airport (not including pilots)
- Part-time annual employees at airport (not including pilots)
- Number of planes maintained at airport.

It is not known how many users of the web-calculator gather air cargo information for their economic impact analyses. These air cargo inputs are part of what is used to calculate the "Economic Impact of Business Use".

The web calculator uses county-based IMPLAN multipliers for expenditure and employment, applying the truck-transport sector multiplier to businesses that ship freight<sup>6</sup>. The cost-savings of using one airport over another are calculated based on miles saved multiplied by the government mileage reimbursement rate multiplied by the county-specific IMPLAN multiplier<sup>7</sup>.

#### **Future Studies**

MnDOT has contracted with The Center for Transportation Studies to do a system-wide economic impact analysis.

<sup>&</sup>lt;sup>5</sup> Ibid, page 5.

<sup>&</sup>lt;sup>6</sup> Ibid, , page 17.

<sup>&</sup>lt;sup>7</sup> Ibid, page 24.

In the past, we did sample studies, looking at a few airports from each category and extrapolating. This will be an economic impact analysis of ALL system airports, as opposed to the piecemeal approach of individual airports.

MnDOT believes it likely this analysis will include inputs similar to those used in the web calculator created by the same group. We can expect some effort will be put towards improving the standard formula for estimating expenditures and towards addressing other limitations noted for the web-based calculator<sup>8</sup>.

<sup>&</sup>lt;sup>8</sup> Ibid, see page 28 for other model limitations.

## Minnesota References

Development of a Web-Based Economic Impact Calculator for Small and Medium Size Airports, 2005-19, Final Report; William Gartner, Daniel Erkkila, Jo Hyunkuk; Department of Applied Economics, University of Minnesota; 2005.

*Tier 2 Air Service Study, Minnesota in partnership with Wisconsin, Technical Report, June 2003;* KRAMER aerotek, Inc.; Ricondo & Assoc., Inc.; and SEH, Inc.; Prepared for the Office of Aeronautics, MnDOT, 2003.

Minneapolis-Saint Paul Air Cargo Study; SITA Logistics Solutions, Geneva, Switzerland; 2001.

*Minnesota Statewide Air Cargo Study, Final Report;* TAMS Consultants, Inc., Chicago Illinois; January 1999.

2006 State Aviation System Plan; MnDOT; 2006. CD

Minnesota Department of Transportation, Office of Aeronautics and Aviation Richard Theisen, Planning and Research Program Coordinator 651-234-7192 Dick.theisen@dot.state.mn.us

# Iowa Department of Transportation, Office of Aviation website:

http://www.iawings.com/

### Air Cargo Information

The Iowa Department of Transportation (DOT) Office of Aviation does not routinely gather air cargo information, nor has it conducted a study specifically on Iowa's air cargo operations.

However, the following two studies, completed within the last ten years, include at least some air cargo component. These studies were sponsored by the Iowa Department of Transportation, Office of Aviation. Each study's air cargo components are summarized below.

- 2008 Iowa Air Services Study of 2008
- 2009—Economic Impact of Aviation, Uses and Benefits of Aviation in Iowa

As part of the *Iowa Air Services Study* of 2008<sup>9</sup>, the Iowa DOT asked businesses about the type of air cargo services used, and to specify shipment weights. This information was not airport-specific, but rather for cargo services used at any airport in the state of Iowa.

In the 2009 study, *Economic Impact of Aviation, Uses and Benefits of Aviation in Iowa*<sup>10</sup>, commercial airports, airport tenants, and businesses were surveyed about economic activity associated with aviation. While some air cargo data was collected, the studies goal was to calculate the economic impact of aviation from all economic activity associated with aviation. Air cargo information was not examined on its own.

The study methodology included an initial mail survey, with follow-up site visits to airport managers. Tenant follow-ups were usually completed via telephone.

After we received the surveys back we went out and met with all the airports in the state and gathered missing information. This visit was very important—there were many adjustments to answers when we went out and talked with them at the airport.

<sup>&</sup>lt;sup>9</sup> Wilbur Smith Associates, McClure Engineering Company, and Snyder & Associates, *Iowa Air Service Study, 2008: Economic Impacts of Commercial Airports in Iowa*, 2008

<sup>&</sup>lt;sup>10</sup> Wilbur Smith Associates, McClure Engineering Company, and Snyder & Associates, *Iowa Economic Impact of Aviation: Uses and Benefits of Aviation in Iowa*; April 2009

The **Airport Management Survey** included questions about the frequency of various aviation activities, including air cargo activity and patient transport. In addition, airports were asked to provide:

- name, contact phone and address for each on-airport tenant
- an estimate of each tenant's full-time and part-time employees.

Tenants, some of whom would have been air cargo operators, were sent the <u>Airport Tenant</u> <u>Survey</u>.

Airports were also asked to provide names and addresses for businesses that were major users of the airport. Businesses were sent the <u>Business Aviation Use Survey</u>.

The **Airport Tenant Survey** asked tenants to list the types of aviation activity associated with their businesses-- one option was 'Air Freight/Cargo Carrier'. Activities were not exclusive, and tenants could choose more than one activity.

Airport tenants were asked to provide information on:

- gross sales at the airport
- full-time and part-time employees at the airport
- wages and benefits of airport employee
- operating expenses for the previous year
- capital improvement spending in each of past four years

Many tenants did not report sales. Our consultant derived missing sales and employment information from Dunn & Bradstreet, and other sources.

While data could potentially be grouped for businesses associated with air cargo, grouped data would not necessarily be complete, nor would it include only information on air cargo operations.

The **Business Aviation Use Survey** had a section on businesses' dependence on air cargo. Businesses were asked how frequently they used integrated carriers, commercial airlines, freight forwarders, chartered cargo aircraft, and company-owned cargo aircraft for cargo. Businesses were also asked about

- gross sales in Iowa
- number of employees in Iowa
- wages and benefits for Iowa employees
- portion of employment dependent on airports
- general aviation use

Business questions were not airport-centric, but rather referred to the whole state of Iowa.

Information gathered in these three surveys was used as to calculate the economic impact of aviation in Iowa, and to paint a picture of services offered at each airport.

#### **Calculating Economic Impact**

The Iowa DOT uses IMPLAN to calculate the economic impact of aviation. Model inputs include

- sales,
- employment,
- operating expenses and
- capital improvement expenses

Sources of information include

- airports,
- airport tenants and
- major users of airports.

To calculate induced impacts, the IMPLAN multiplier for the air transportation sector is used for businesses self-identifying as air cargo or fixed-base operators.<sup>11</sup>

We took information from the economic impact analysis and summarized all the information for an airport into a three page document for each airport, reporting the level of activity, the types of activities, the common uses of the airport, and its economic impact. ...It was something they could give to their chamber of commerce.

#### **Future Studies**

Iowa does not plan to study air cargo.

We had a cargo group that came together at DOT, but it came up again and again— <u>aviation</u> has NO capacity issues. ...Aviation has small tonnages, and only time-sensitive materials. We don't have any capacity issues. So we don't feel there is a need to study this separately.

<sup>&</sup>lt;sup>11</sup> Uses and Benefits of Aviation in Iowa (Appendix B), page B-4

## **Iowa References**

*Iowa Economic Impact of Aviation: Uses and Benefits of Aviation in Iowa*; Wilbur Smith Associates, McClure Engineering Company, and Snyder & Associates; April 2009. <u>http://www.iawings.com/airports/Economic Impact Study 2009.htm</u>

*Iowa Air Service Study, 2008: Economic Impacts of Commercial Airports in Iowa;* Wilbur Smith Associates, McClure Engineering Company, and Snyder & Associates; 2008. <u>http://www.iawings.com/airports/Air Service 2008/Air Service.htm</u>

**Iowa Department of Transportation, Office of Aviation** Tim McClung, Planning and Outreach Manager 515-239-1689 <u>Tim.Mcclung@dot.iowa.gov</u>

## Indiana Department of Transportation, Office of Aviation

#### Indiana Department of Transportation, Office of Aviation website:

http://www.in.gov/indot/2372.htm

#### Air Cargo Information

The Indiana Department of Transportation (DOT) Office of Aviation has not studied air cargo. The DOT conducts an economic impact study every few years—any information gathered from air cargo operators is in their role as airport tenants. Information provided by all airport tenants is aggregated for analysis.

In the 2005 Economic Impact Study, airport managers and airport tenants were asked to provide information on:

- payroll expenditures
- operating expenditures
- capital improvement expenditures
- number of full-time and part-time employees

We conducted the economic impact analysis—we asked for airport and tenant payroll, and airport and tenant operating and capital expenditures, so **insofar as air cargo operators are tenants, we have assessed their economic impact. But we do not break out this information for air cargo operators.** 

The study methodology consisted of a mail survey sent to 102 public use airports. Along with the **Airport Owner/Operator Survey**, airport managers were sent an **Airport Tenant Survey**, and were asked to copy, distribute and collect this survey from all airport tenants. Airport managers were asked to compile tenant responses on one sheet and to include this information with their survey.

We send the survey to airport managers, and ask them to survey their tenants regarding payroll, operating expenses and capital expenditures.

Of 102 surveys sent, 53 were returned. For airports that did not return surveys, direct economic impacts were estimated using United States Department of Transportation employment estimates per based aircraft and the average salary of airport operators and tenants returning the survey.<sup>12</sup>

<sup>&</sup>lt;sup>12</sup> Aviation Association of Indiana, 2005 Economic Impact Study, 2005, page 6.

#### **Calculating Economic Impact**

The Indiana DOT uses a formula to calculate economic impact which includes direct impact, induced impact and indirect impact.

Direct impact is the sum of:

- airport payroll
- tenant payroll
- operating expenditures
- capital expenditures

Induced impact is calculated using a multiplier equal to one,

"the same conservative, common multiplier for all airports used in the economic impact studies of specific airports conducted by the American Association of Airport Executives (AAAE)"<sup>13</sup>.

Indirect impact is calculated based on transient aircraft operations and deplaned passengers.

We collect data for our economic impact analyses. This information doesn't affect policy, but it is used for justification purpose... to justify the existence of airports... airports have a great impact and that isn't always recognized.

#### **Future Studies**

The Indiana DOT has no air cargo studies planned at this time.

<sup>&</sup>lt;sup>13</sup> *Ibid*, page 8.

## **Indiana References**

*2005 Economic Impact Study;* Aviation Association of Indiana; 2005. <u>http://www.in.gov/indot/files/AAIEcoImpactStudy.pdf</u>

*Indiana State Aviation System Plan 2003 Update;* Aerofinity, Inc., Blalock & Brown, Mid-States Engineering, LLC, R.W. Armstrong & Associates, Inc; 2003. <u>http://www.in.gov/indot/files/summary\_report.pdf</u> (There is only a general discussion of air cargo in this document.)

Indiana Department. of Transportation, Office of Aviation Marty Blake, Aviation Planner 317-232-1487 MaBlake@indot.IN.gov

## **Illinois Department of Transportation, Division of Aeronautics**

#### Illinois Department of Transportation, Division of Aeronautics website: http://dot.state.il.us/aero/index.html

### Air Cargo Information

The Illinois Department of Transportation (IDOT) Division of Aeronautics reports that it has conducted no studies on air cargo in the past ten years, nor does it collect air cargo information. IDOT reviews available information on cargo lifted weight for the purpose of requesting related cargo-stipends.

The only time [IDOT] gathers air cargo data is to support infrastructure development.

Individual airports may gather air cargo data for specific projects, such as the O'Hare Modernization Program, but according to the IDOT representative, the Division of Aeronautics is not involved in these efforts.

The South Suburban Airport Project investigates opportunities for a new airport south of Chicago. The IDOT representative was not fluent on study details or certain that air cargo was studied in any cohesive manner for this project, however some details are available in the draft report, Airport Master Plan for the South Suburban Airport Project, Projections of Aeronautical Activity<sup>14</sup>, 2004. The purpose of the projection study was to...

"define and characterize the market area in which the proposed South Suburban Airport will operate, determine potential users and activity that could occur during the Inaugural Airport Program and develop a forecast of aeronautical activity to be used in the development of the Airport Master Plan and Environmental Impact Statement."

The report does include a lengthy exploration of air cargo potential in the Chicago area. It looks at the likely market segments the airport's air cargo operations would serve. It considers air cargo forecasts such as Boeing's forecasts for world air cargo, and the FAA's short and long-range forecasts for cargo shipments. It looks at airport-specific historical data and projections for air cargo tonnage, using City of Chicago statistics on O'Hare International Airport for <u>domestic and international freight express tonnage</u> and <u>mail tonnage</u>, and for <u>belly cargo and all-cargo enplaned tonnage</u> and deriving air cargo tonnage and projections for Midway International,

<sup>&</sup>lt;sup>14</sup> TAMS, an Earth Tech Company, The al Chalabi Group, Ltd., Global Insight, Inc., L.E.K. Consulting, *Airport Master Plan for the South Suburban Airport Project, Projections of Aeronautical Activity for the Inaugural Airport Program South Suburban Airport—DRAFT*; Prepared for the Illinois Department of Transportation, May, 2004.

Gary/Chicago International and the Greater Rockford Airport. It identifies the <u>types and volume</u> of air cargo shipped in the Chicago region using U.S. Census Bureau statistics by Custom Districts. It forecasts <u>domestic air cargo demand</u> for the Chicago region based on the Global Insight "*long-term economic outlook for the United States and for the individual states in the country*."<sup>15</sup> It uses <u>commodity-specific tonnage</u> from the Reebie Associates TRANSSEARCH freight flow database. The report examines air cargo growth potential in domestic markets, in international markets by region, by emplaned and deplaned cargo, and by commodity type and then forecasts air cargo activity at the South Suburban Airport under different market share scenarios. The study report lists data sources and describes methodology.

Given the depth of air cargo information within the South Suburban Airport Project study, it is likely that other project-specific studies include air cargo components. While IDOT has not conducted a state-wide air cargo study, Illinois' air cargo activity and air cargo potential has probably been studied. To determine the extent and breadth of air cargo studies, it may be necessary to talk with representatives at individual airports, for example, with planners at O'Hare International Airport, or with city of Chicago officials.

#### **Calculating Economic Impact**

The Illinois DOT Division of Aeronautics does not use air cargo inputs in economic impact studies. According to the IDOT representative, the last state-wide economic impact study was done more than ten years ago and did not include air cargo inputs. IDOT does not conduct economic impact analyses for individual airports.

#### **Future Studies**

The Illinois DOT hopes to do a state-wide economic impact study in the future, but this is dependent on funding. As part of their next state-wide economic impact study, IDOT hopes to review and forecast air cargo demand for the state.

Air cargo is important due to our geographic location in the Midwest and internationally.

Economic Value of Air Cargo – Midwest Aeronautics Office Interviews--DRAFT University of Wisconsin Survey Center

<sup>&</sup>lt;sup>15</sup> IBID, page 65.

## **Illinois References**

Airport Master Plan for the South Suburban Airport Project, Projections of Aeronautical Activity for the Inaugural Airport Program South Suburban Airport—DRAFT; TAMS, an Earth Tech Company, The al Chalabi Group, Ltd., Global Insight, Inc., L.E.K. Consulting; Prepared for the Illinois Department of Transportation; May, 2004. <u>http://www.southsuburbanairport.com/masterplan\_ssa/pdf/forecast/Passenger\_Forecasts.p</u> <u>df</u>

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## Michigan Department of Transportation, Bureau of Aeronautics

Michigan Department of Transportation, Bureau of Aeronautics website: http://www.michigan.gov/aero/

#### Air Cargo Information

The Michigan Department of Transportation (DOT) Bureau of Aeronautics has not studied air cargo. It primarily relies on the FAA database of lifted air cargo weight. The Michigan Transportation Management System provides this information, pounds of cargo and of mail emplaned monthly for the 17 largest public use airports, on the Michigan Bureau of Aeronautics website: <u>http://mdotwas1.mdot.state.mi.us/public/airportstats/</u>

While not conducting air cargo studies themselves, the Michigan DOT is aware of and makes use of studies conducted by the University of Michigan-Dearborn.

The University of Michigan has done special studies on Willow Run airport and Detroit Metropolitan airport... We sometimes extrapolate their values to other airports on an individual basis—job creation, economic impact. But we don't do our own.

The University of Michigan report, *The Economic Impact of Willow Run Airport 2007*, lays out the study's methods and results. Researchers included economic impacts arising from:

- air transportation
- visitors
- education
- expansion

Economic impact on the county and the state is presented in terms of:

- direct spending
- economic impact
- earnings impact
- job impact

Data sources and methodology are presented in the study report and appendices. Rather than gathering the information directly, the University of Michigan used publicly available information to estimate values. As an example, researchers estimated the **dollar value of cargo shipments departing** Willow Run airport as follows. According the report, FAA figures on emplaned air cargo weight refer to the maximum weight of the aircraft, not the weight of carried cargo. **Net cargo weight** was calculated by multiplying this maximum aircraft weight by the

percent of weight available for cargo (assuming full loads). That percentage varied by aircraft, so they used the percentage for the prevailing air cargo aircraft at Willow Run airport. The **net air cargo tonnage** was multiplied by an estimated **average distance of cargo shipments** in miles, provided in US-DOT's T-100 data, to get **revenue ton miles**. The study used Northwest Airlines' publicly reported air **cargo yields**, multiplying revenue ton miles by air cargo yields to estimate the **dollar value of cargo shipments** departing Willow Run.

Indirect effects of air cargo activities were calculated using the respective 'air transportation' multiplier for the county and state.

The University of Michigan conducted a similar economic impact analysis study for the Detroit Metropolitan airport.

#### **Calculating Economic Impact**

The Michigan DOT does conduct economic impact analyses for individual airports.

We do economic impact analyses—we call it a Community Benefits Assessment, or CBA.

The DOT sends a CBA survey to a municipality or airport managers. The recipient is to gather information from airport administration and local businesses, compile that information and submit it to the DOT for analysis.

We only use that survey for General Aviation Airports generally. We don't have the ability to produce reports for large air carrier airports.

The survey asks for the number of **jobs**:

- on-airport that are aviation-related
  - state and local government
    - <u>FBO</u>s and private contractors
    - <u>airlines</u> and <u>aviation businesses</u>
    - <u>shipping and warehousing</u>
    - terminal concessions
- on-airport that are non-aviation related
- off-airport that are at air-reliant businesses
  - shipping warehousing
  - catering and other services
  - manufacturers
  - services
  - government

It asks respondents to quantify airport activity as:

- number of operations per year
- number of passengers per operation
- <u>number of tons cargo per operation</u>
- visitor portion of passengers

That activity is to be apportioned by type of carrier:

- general aviation local
- general aviation itinerant
- air taxi
- commuter
- air carrier
- military

Finally it asks for:

• number of based aircraft by aircraft type

Many air cargo employees would be included within the listed employment categories above. While requested, respondents rarely provide the tons of air cargo per operation.

The Michigan DOT was unclear on what multiplier was used in the CBA system for calculating indirect effects. The system was developed by Economic Development Research Group (EDR) out of Boston, Massachusetts.

Michigan makes no attempt to quantify economic impacts arising from air cargo alone.

#### **Future Studies**

No air cargo study is planned for the near future.

There are plans for a state-wide Community Benefit Assessment. But I don't know if there would be any air cargo components to it.

## **Michigan References**

*The Economic Impact of Willow Run Airport 2007;* Lee Redding, University of Michigan-Dearborn, School of Management, iLabs; Prepared for the Wayne County Airport Authority Board; 2007.

http://www.metroairport.com/about/publications.asp

*Detroit Metropolitan Wayne County Airport, 2006 Economic Impact Study*, Lee Redding, University of Michigan-Dearborn, School of Management, iLabs; Prepared for the Wayne County Airport Authority Board; 2006. http://www.metroairport.com/about/publications.asp

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