Section IV
TARGET INDUSTRIES FOR JCIA
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In this section of the report, specific target development markets for JCIA are examined. First, the specific industries determined to have potential in the greater Olathe area are summarized from previously conducted economic development plans and target industry studies. Second, uses with potential related to the JCIA’s airport facilities and infrastructure are evaluated by examining forecasts for airport-related industrial development and comparable industrial airports elsewhere.

**Olathe Target Industries**

In 1989, Midwest Research Institute (MRI) conducted a target industry analysis for Olathe which identified high-potential industries for attraction, expansion, or start-up based on a series of factors including:

- The city’s existing industrial base and linkage to it.
- Forecast national growth by industrial SIC in terms of employment, output, and value added.
- The city’s locational strengths and weaknesses compared to the locational requirements of the growth industries.

Based on this analysis, the analysis identified several industries by four-digit SIC with growth potential for Olathe. Because the analysis included JCIA as part of the...
Olathe area business base and because virtually all of the factors affecting business location for Olathe are equally applicable to JCIA, these target industries are summarized in this report.

The study identified three major manufacturing industry sectors with high potential for the Olathe area are Food and Kindred Products, Electronics and Electrical Components, and Instruments and Related Products. The specific recommended target industries are listed below along with the relevant factors supporting their potential.

1. **Food and Related Products**

   **SIC 2038. Frozen Foods**
   
   - Specifically, frozen foods and frozen pizza products.
   
   - There are six firms in Kansas City, Missouri, with over 1,500 employees and one firm in Johnson County.
   
   - The required utility and transportation requirements for these firms are in place.

   **SIC 2041. Flour/Grain Mill Products**
   
   - There are numerous firms in the Kansas City metropolitan area.
   
   - Average firm size is small with 35 employees per firm.
   
   - A potential start-up firm opportunity.

   **SIC 2047. Dog and Cat Foods**
   
   - Aligns well with supply of labor and transportation access factors.
• Long-term business relocation or new plant location target because firm size is large, 100 employees per firm.

• Also applicable to SIC 2048, Feeds for Other Animals.

SIC 2099. Other Food Preparations

• In particular, yeast, peanut butter, vinegar, spices, and dry preparations.

• Linked to other Olathe-area firms including those at JCIA.

• Matches well with area labor force capabilities and rail access.

• Primarily expansion and short-term opportunity due to relatively small average firm size.

2. Printing and Publishing

SIC 2721. Periodicals Publishing, and Printing

• There are nine periodical firms in Johnson County although none in Olathe.

• This category aligns well with area labor force, rail access, and available building space.

3. Electrical Components and Instruments

SIC 3678. Electrical Connectors

• Electronic coaxial, cylindrical, rack and panel printed circuit board connectors.

• Matches well on market proximity and building space availability but low on technology index.
• There is one firm in Johnson County but four others in related electrical components businesses.

• Average firm size is small, therefore, this represents a short-term expansion opportunity.

• Also applies to SIC 3679 - Other Electronic Components for which there is an even stronger base with 12 firms in Johnson County.

SIC 3841. Surgical and Medical Instruments

• Although there are no existing firms, it matches well with the area’s extensive health care industry concentration.

• Relatively large companies, average 80 employees, therefore, long-term development opportunity.

SIC 3842. Orthopedic/Prosthetic/Surgical Appliances

• Two firms in Johnson County, average 50 employees per firm.

• Opportunities for existing business expansion and new industry development.

Other Industry Targets

The analysis also indicated trucking and warehousing as high-potential business development opportunities based on the existing distribution concentration occurring in Olathe and because of the excellent rail and highway system serving the area. Warehousing and distribution space was, therefore, expected to continue to be a major industrial land use. The study did not place a high emphasis on recruiting these businesses because of the relatively low labor requirements and relatively low wage scales.
MRI also conducted a less rigorous screening for opportunities in the service industry sectors. Recommended business development targets include professional organizations and associations for office development and medical and dental laboratories.

**Aviation-Related Industries**

Because JCIA was just a portion of the area addressed in the Target Industries Analysis, the conclusions dealt more with the overall area potential and did not focus on those aviation-related uses that might be targeted as uniquely suited for the land adjacent to an operational airfield. The consultant team has therefore expanded the target industry list to evaluate several specific additional opportunities as outlined below.

The most unique aspect of JCIA as a business/industrial location is the airport. It differentiates this location from all others in the metropolitan area with the exception of Kansas City International (KCI) and potentially Richards-Gebaur. The airport facilities also represent the largest capital infrastructure investment at JCIA. Yet, the airport facilities have not been successfully marketed to potential industrial users in the past.

One of greatest potentials for expanding and diversifying the mix of businesses JCIA is to increase the focus on the airport as the primary asset. There are a number of industrial airports under development around the country, many on former military bases such as JCIA. The much publicized success of the new Fort Worth Alliance Airport has increased interest nationally in the development of industrial airports. Alliance was created when a private real estate developer, the Perot Group, dedicated
land to the City of Fort Worth to create a reliever airport, but also an airport with an adjacent industrial park marketed to aviation-oriented companies. The recent group of Air Force base closures (Rand II includes 13 bases) is also likely to result in new industrial airports being developed.

As air transportation continues to capture a growing portion of distribution business, the appeal of airport-adjacent locations for industry is projected to grow. In addition to fixed-based operators, there are other airport-related businesses that are being targeted such as air cargo, just-in-time (JIT) industry, international distribution, and aircraft-related maintenance. The potential market for each is discussed below.

Air Cargo

There has been dramatic growth and change in the air cargo industry since deregulation in 1977. The fastest growth segment has been the integrated air express carriers such as DHL, Federal Express, UPS, and Airborne Express. In 1977, the integrated cargo companies had 15 percent of total cargo jet capacity and by 1988 they had 335 jets and 75 percent of total all-cargo capacity, not including "belly" cargo in scheduled passenger airlines. This trend has continued with air cargo express companies growing at 15 percent per year.

Passenger airlines are no longer a major presence in the small package market, but they continue to dominate the airport-to-airport movement of large shipments. About 50 percent of domestic and 80 percent of international freight is still carried as belly cargo on domestic airlines, as shown in Table 16 below.

_Boeing, Siler, George Associates_
BRW, Inc.
Table 16
U.S. AIRLINE FREIGHT TRAFFIC

<table>
<thead>
<tr>
<th></th>
<th>Revenue Ton Miles in Millions</th>
<th>Average Annual Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1980</td>
<td>1984</td>
</tr>
<tr>
<td>Domestic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheduled</td>
<td>3,273</td>
<td>3,558</td>
</tr>
<tr>
<td>Charter</td>
<td>291</td>
<td>615</td>
</tr>
<tr>
<td>Express Carriers</td>
<td>312</td>
<td>1,338</td>
</tr>
<tr>
<td>Subtotal</td>
<td>3,876</td>
<td>5,511</td>
</tr>
<tr>
<td>International</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheduled</td>
<td>2,466</td>
<td>2,989</td>
</tr>
<tr>
<td>Charter</td>
<td>508</td>
<td>524</td>
</tr>
<tr>
<td>Subtotal</td>
<td>2,974</td>
<td>3,512</td>
</tr>
<tr>
<td>Total U.S. Airlines</td>
<td></td>
<td></td>
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<tr>
<td>Scheduled</td>
<td>5,739</td>
<td>6,546</td>
</tr>
<tr>
<td>Charter</td>
<td>799</td>
<td>1,139</td>
</tr>
<tr>
<td>Express Carriers</td>
<td>312</td>
<td>1,338</td>
</tr>
<tr>
<td>Grand Total</td>
<td>6,850</td>
<td>9,023</td>
</tr>
</tbody>
</table>

Source: Boeing, World Air Cargo Forecast

In spite of the heavy differential in air freight by weight, approximately 88 percent of air freight revenues are accounted for by dedicated integrated carriers and freight forwarders. Internationally, 75 percent is in the lower decks of passenger aircraft. This reflects the fact that most international flights are in wide-body aircraft with substantial air cargo capacity. Federal Express and UPS are making some inroads by using their own all-cargo aircraft for international express and heavier cargo business. Forecasts for the next decade are that growth by the integrated express carriers will slow down, but still grow at an annual rate of eight to nine percent. Increases for international freight traffic are expected to exceed domestic growth rates.

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BRW, Inc.
There has been considerable interest nationally in the development of dedicated air cargo airports. The concept of developing air cargo centers has evolved primarily as a result of the integrated express companies choosing less congested airports for their primary and regional hubs. Federal Express hubs in Memphis and Oakland, UPS hubs in Louisville, Ontario (California), and Philadelphia are examples.

The advantages of being away from the large primary airports relate to reduced congestion, lower landing fees, and the ability to utilize valuable close-in taxiway and ramp space for more efficient operations. The next logical step is that the air cargo carriers forego passenger airports entirely and locate at all-cargo facilities.

The clear disadvantage faced by all air cargo airports is that other than the integrated express carriers, cargo operations are not easily separated from passenger operations. Since 60 percent of air cargo volume (by weight) is still moved on passenger aircraft, it must remain at the air carrier airports. Separation of all-cargo and belly cargo will force agents and freight forwarders who deal in both types of operations to maintain facilities at two locations. In addition, a certain amount of flexibility in deciding whether to send a shipment as belly cargo or on an all-cargo carrier is lost.

The all-air-cargo or primary-air-cargo airport concept is being pursued (to different degrees) by several airports with mixed results to date. Three facilities, Alliance Airport in Fort Worth, Stewart International Airport in New Windsor, New York, and Huntsville Airport in Huntsville, Alabama, are reviewed for their relevance to JCIA potentials.

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Fort Worth Alliance Airport. Alliance is a multipurpose reliever airport designed and built to serve distribution and air cargo business. This airport project happened as a result of a private developer, the Perot Group, donating 418 acres of land to the City of Fort Worth to build a new airport. The Perot Group is developing a 4,800-acre private industrial park in conjunction with the airport on adjacent property.

Opened in December of 1989, Alliance consists of a single 9,600-foot runway, FAA control tower, and two ILS landing systems with approach lighting systems (ALS). The Fort Worth Alliance Airport was constructed for $49 million including $44 million in FAA grants.

The Perot Group has sold five parcels of land totalling 284 acres of land in its two years of operation, as shown in Table 17 below.

<table>
<thead>
<tr>
<th>User</th>
<th>Type</th>
<th>Sq.Ft. Building</th>
<th>Acres Land</th>
<th>Est. Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Airlines</td>
<td>Maintenance</td>
<td>781,000</td>
<td>202</td>
<td>400</td>
</tr>
<tr>
<td>U.S. Drug Enforcement</td>
<td>Hangar</td>
<td>100,000</td>
<td>12</td>
<td>155</td>
</tr>
<tr>
<td>Ishida Aerospace</td>
<td>Research/Mfg.</td>
<td>25,000</td>
<td>14</td>
<td>100</td>
</tr>
<tr>
<td>Santa Fe Railroad</td>
<td>Distribution</td>
<td>10,000</td>
<td>55</td>
<td>50</td>
</tr>
<tr>
<td>Texaco</td>
<td>Service Station</td>
<td>1,000</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>917,000</td>
<td>284</td>
<td>715</td>
</tr>
</tbody>
</table>

Source: City of Fort Worth

The largest user is the American Airlines maintenance facility with 781,000 square feet of hangar and maintenance space on a 202-acre site. The U.S. Drug
Enforcement Administration has purchased 12.3 acres for a hangar facility for its helicopters and planes for the six-state region. A Japanese company, Ishida Aerospace Research, has purchased 14 acres to design and build a prototypical plane. They have built a 25,000-square-foot research facility which is planned to be followed by a 40,000-square-foot manufacturing facility. Santa Fe Railroad has purchased 55 acres at a remote site (over a mile from the airport) as an unloading facility for autos brought into Dallas-Fort Worth by train, which is unrelated to the aviation facilities.

Alliance has been unsuccessful to date in attracting air cargo users. There is a total of 725,000 square feet of air cargo space at Dallas-Fort Worth Airport and UPS is now building a regional hub on 60 acres of leased land at DFW. Alliance was ruled out because of its greater distance from Dallas which generates 70 percent of air freight business in the greater Dallas-Fort Worth metroplex.

In terms of aircraft operations, Alliance has exceeded expectations in its dual role as a reliever airport with 139,000 operations (take-offs and landings) in 1990 and 142,000 in 1991. Annual revenues have exceeded $130,000 in 1991 as shown in Table 18 below.

<table>
<thead>
<tr>
<th>Table 18</th>
<th>ALLIANCE AIRPORT REVENUES, 1991</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landing Fees</td>
<td>$116,922</td>
</tr>
<tr>
<td>Parking Fees</td>
<td>521</td>
</tr>
<tr>
<td>Site Rentals</td>
<td>7,027</td>
</tr>
<tr>
<td>Access Fees</td>
<td>0</td>
</tr>
<tr>
<td>Fuel Fees</td>
<td>5,842</td>
</tr>
<tr>
<td>Total</td>
<td>$130,312</td>
</tr>
</tbody>
</table>

Source: City of Fort Worth

*Hammer, Siler, George Associates*

*BRW, Inc.*
Landing Fees are primarily from American Airlines ($67,000) and Southwest Airlines ($43,000) who both use the airport for flight training. Access fees are expected to be a significant source of revenues in the future. The City will charge access fees to private companies for through-the-fence and ramp/taxiway use. American Airlines was exempted from these fees as part of the economic development inducement package offered by the City and the State to attract American to Alliance.

Stewart International Airport. This is a former Air Force base converted to an air cargo and reliever airport. Decommissioned in 1970, the airport was improved and expanded, but was slow to attract business. In 1983, it was taken over by the New York Department of Transportation which began to market the airport to serve commercial, corporate, and cargo users in addition to general aviation traffic.

Prior to 1983, New York invested $83 million in land acquisition and runway expansion. Since 1983, the state has invested another $35 million in industrial park and other airport lands. The airport has two runways including a 12,000-foot runway with ILS and ALS. The industrial park has a total of 9,960 acres available.

In terms of major public users, Stewart has an Air National Guard base, U.S. Post Office regional mail facility, and U.S. Department of Agriculture animal import center. Several users are in the air cargo facility including Airborne, Emery, and Federal Express. A new 200,000-square-foot air cargo terminal is under construction on 170 acres. Airborne and Emery Worldwide have tentative plans to build regional hubs at Stewart in the future.
Huntsville International Airport. The Huntsville-Madison Airport was built in 1967 as a regional commuter airport with an associated industrial park of about 2,000 acres. It has two parallel 8,000-foot runways with 5,000-foot separation allowing for independent ILS operations. One runway is being extended to 10,000 feet to accommodate international flights. With 432,000 passengers annually, it ranks as the 110th busiest airport in the U.S.

In 1987, the Huntsville-Madison Airport Authority decided to actively pursue cargo business and built a $13 million intermodal cargo facility using the FAA Airport Improvement Program (AIP) funds along with grants from EDA and the Appalachian Regional Commission (ARC). The 36-acre facility provides services for transferring, storing, and distributing containerized air, rail, and truck cargo. The original facility included the railside facility and a cargo apron for air cargo. Subsequently, a 50,000-square-foot air cargo building was built in 1990 for $3 million to house air cargo companies on-site.

The air cargo building contains four 12,500-square-foot bays, each with a two-story 2,500-square-foot office core. There is therefore 11,250 square feet of distribution-sorting area in each bay. The bays have a 28-foot clear span with apron-level bays on the air side and six dock-high doors and two drive-in doors each on the land side. The total air cargo site area includes a 900-foot by 500-foot ramp including a 125-foot by 125-foot concrete pad. The site also includes slab space for an additional three 12,500-square-foot bays.

Current air cargo tenants include Airborne Express, DHL Worldwide Express, Emery Worldwide, Burlington Northern, and Panalpina/Cargolux. The air cargo tenants are paying $7 a square foot per year for building space generating a total of $350,000
per year in revenues. The air cargo side of the operations are just covering the debt service on the air cargo building and not generating operating revenue. The associated air landing fees go directly to the airport. There are a total of about 2,200 cargo enplanements per year generating about $750,000 in landing fees that flow directly to the airport. About 8 million pounds of air cargo are handled per year, more than 85 percent by the all-air-cargo carriers.

The primary railside facility is 1,200 feet long by 500 feet wide (600,000 square feet) including four railroad tracks under a moveable crane. The tracks can accommodate forty-four 90-foot rail cars, each holding two containers, or a total capacity of 88 cars. There is a three-story, 20,000-square-foot, $1 million office building with truck lanes through it as an entryway to the facility. The site is very efficient compared to other facilities because the crane can place the truck cars perpendicular to rail tracks. There is also an additional nine acres for a container depot, essentially a parking area for trailer trucks. The facility serves one rail user, Norfolk and Southern under contract. It generates about 15,000 lifts per year, and at $50 per lift, generates $750,000. The container depot generates an additional $200,000 and other services $50,000, for total revenues of about $1 million.

The facility director indicates that key to making an intermodal distribution center function is having all of the cargo services under one roof including U.S. Customs, foreign trade zone, and customs brokers. The facility essentially operates as an inland port for international distribution. The primary customers are the steamship companies, not manufacturers.

Also located at the airport is the Huntsville-Madison County Jetplex Industrial Park. The airport is a self-sustaining entity, on an operating basis, although they have
been very successful raising grants and loans for capital improvement projects. There are approximately 5,200 jobs on-site.

**Aircraft-Related Maintenance and Manufacturing**

JCIA has three businesses currently involved in some aspect of aviation equipment maintenance or manufacturing. Bendix manufactures, installs, repairs, and services aviation instruments; JCAir manufactures avionics test equipment; and Johnson County Industrial Avionics repairs aircraft instruments. There are also larger companies that overhaul airplanes that need an airport location. The major air carriers all have their own operation. There is some precedent for these operations to select general aviation airports. For example, Boeing maintains its planes at Paine Field in Everett, Washington, American Airlines selected Alliance Airport in Fort Worth for its central maintenance facility, and Northwest is locating some of its maintenance facilities at Duluth Airport (a former Air Force base).

There are also a considerably larger number of independent maintenance companies, unaffiliated with an airline. They may specialize in a particular type of service used by all aircraft owners or they may provide services that the major air carriers perform. There are about 80 independent maintenance operators in the United States. Lockheed Air Center, Pemco, and Dalfort dominate with 46 percent of the sales and 40 percent of the locations.

In the United States, there are approximately 2,440 commercial jet aircraft over 20 years old; by 1995, there will be 4,100 aircraft over 20 years old. As the average age of commercial aircraft increases, FAA airworthiness directives (A/D) and manufacturers service bulletins (S/B) are also increasing. Partially as a result, aircraft
overhaul operations are being performed more frequently. Also, aircraft are being used more often and aircraft conversions from passenger to cargo service are performed more frequently. There are also facilities that convert obsolete aircraft into "drones" for military target training. These factors all contribute to growing demand for maintenance services.

As aircraft equipment becomes more sophisticated, a wider variety of aircraft maintenance services are needed. There will be a tremendous demand for engine overhaul and retrofitting as America’s stock of Stage II aircraft must be converted to meet Stage III noise requirements by 2000 under federal regulations.

Historically, larger air carriers service smaller carriers as a way to spread their fixed costs. Manufacturers have also provided contract maintenance. However, recently both the larger carriers and manufacturers are at capacity servicing their own aircraft. Independent maintenance workers are backedlogged with work. A number of new independent maintenance companies have been formed to meet this market need. Industrial airport locations that can handle landings for a full range of aircraft but offer lower land costs than at major airports are the preferred locations for these businesses. JCIA should be well positioned to compete for aircraft maintenance operations within the midwest states.

There is also a corresponding shortage of trained aircraft mechanics for the work which creates the opportunity for training on the site through the auspices of private commercial schools or local junior/vocational colleges.
International Distribution

Kansas City is already a well-established distribution center for the central United States. In particular, the Kansas City area is noted for food and agricultural products. It is also strategically located between the Pacific Rim and Europe. As businesses and corporations located in the Kansas City area move into greater levels of international trade, airport locations for international distribution operations could potentially be supported. A specific potential for international distribution is facilities for agricultural product shipping and receiving.

Just in Time

Just in Time (JIT) is a recent innovation of manufacturing and distribution business altering the inventory systems for both supplies and products as a result of faster, more reliable transportation service. JIT allows manufacturers to order product components and other materials on an as-needed basis avoiding the costs of maintaining inventory. Similarly, with more sophisticated ordering systems, manufacturers (and also wholesale distribution businesses) can also reduce their inventories of finished product. The key component to reducing inventory costs is access to good reliable transportation. The industrial airport concept allows even more direct access to air transportation, particularly where time savings is critical. JIT inventory control can promote the distribution of perishable goods imported and exported to overseas markets.

The use of JIT inventory represents an increase in efficiency and cost savings to industry. In the last 10 years, U.S. warehouse space has grown less that five percent. Sophisticated inventory management software, JIT inventory programs and
more efficient transportation systems provide for more inventory dollars within less physical space.

This rapid and simple EDI (electronic data interface) is revolutionizing order and delivery processes. It allows businesses such as GTI-DDS to receive orders from supermarkets by computer tape and turn the product (computer bar code supermarket shelf labels) around in 24 hours and ship by air cargo carrier overnight service.

The ability to have on-site airport service would provide an opportunity to greatly expand JIT operations if commercial air cargo service were available on-site.