

RPC CONTRACT # A-3.17 FY-17 UPWP

Plaquemines Land Use and Transportation Sub-Area Analysis - Plaquemines Parish, LA

Submitted to:

Regional Planning Commission

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Executive Summary

Purpose

A potential air cargo facility and industrial campus is proposed in areas immediately surrounding the Naval Air Station/Joint Reserve Base (NAS/JRB) in Plaquemines Parish, Louisiana. The Project Area is bounded by the Intracoastal Waterway to the west, Louisiana Highway 23 to the north, the Mississippi River to the east, and Hero Canal to the south. Due to the near-future completion of multiple ongoing transportation improvements in the area, and the current desire of the NAS/JRB to realign its overall usage to include select private development coordination, the Regional Planning Commission coordinated this study.

Need

The Parish of Plaquemines and the State of Louisiana currently benefit from the NAS/JRB in terms of employment and economic impact. The development of the study area could aid in new employment generation, as well as in preserving the NAS/JRB in the face of potential future military realignment strategies.

Findings

Economic and Demographic Factors

Plaquemines Parish has the highest median and average household income among the region, the state of Louisiana, and the nation for much of the study period (2000 – 2020). Plaquemines Parish has the lowest population within the regional parishes of St. Bernard, Jefferson, and Orleans, yet has over 2,000 more employees working in the parish than in St. Bernard – a total of 16,350 in 2015. This figure reflects the labor force in Plaquemines Parish, and likely includes commuters from the region. This assessment that Plaquemines Parish is a regional employer, pulling workers from not just the Parish but from the region, is supported by stakeholder engagement.

In Plaquemines Parish, business sectors containing at least 15 businesses include: single-family home construction, site preparation contractors, full-service restaurants, legislative bodies, unclassified establishments, and at the top, commercial banking. There are more than 30 commercial banking businesses within the study area in Plaquemines Parish. Aside from the high number of banking institutions, there are many manufacturing, construction, and other industrial businesses in Plaquemines Parish which outnumber the retail and service-based businesses.

Examining payroll spending per employee, Plaquemines Parish outperforms all regional parishes, the state, and the nation with \$50,389 per employee. This is a particularly impressive statistic in comparison to Orleans Parish which was estimated at only \$32,998 for 2015 – over \$17,000 less per employee.

Plaquemines Parish had the lowest unemployment rate in the region, as well as the state of Louisiana, as of November 2016 (5.4%), 2015 (5.5%), and 2010 (6.1%). This is striking when considering Plaquemines had the highest unemployment rate in the region, state, and nation in 2000.

Stakeholder Engagement

Stakeholders in the local business community were identified by Plaquemines Parish officials as well as representatives of the Plaquemines Association of Business and Industry (PABI). These business owners



and managers indicated that trucking was the most utilized method for the movement of goods by their businesses, with 82% of stakeholders reporting use of trucking. Additionally, 45% of stakeholders utilize air shipping, 36% utilize maritime vessels such as barges or ships, 9% utilize trains, and 9% utilize pipelines. It was found that stakeholders utilize air shipping for convenience and time sensitivity, while trucking is utilized for bulk shipments or the weight of the product. Stakeholders responded that their business will utilize the shipping method that is available and most cost-efficient.

Three-fourths (75%) of responding strategic stakeholder firms think an Air Cargo Facility in Plaquemines Parish is preferable, 17% have no opinion, and 8% do not find an Air Cargo Facility in Plaquemines Parish to be preferable. The reason that was given for not finding the proposed development preferable is that it does not affect the stakeholder's business. Stakeholder firms support an Air Cargo Facility in Plaquemines Parish for several reasons, including that it would:

- enhance multi-modal development of the port of Plaquemines;
- generate a greater diversified business economy;
- be a welcome addition to our economic diversification model;
- benefit Plaquemines Parish's economic development;
- foster both direct and indirect job creation;
- provide a necessary part in the overall shipment process to reduce shipment time and cost;
- facilitate the movement of goods while reducing the cost of the movement of goods;
- make the delivery of goods and products easier and quicker;
- give the geographic area West and South of the Mississippi River needed access to air freight;
- generate additional revenue, jobs and growth in the region;
- increase the number of shipping and receiving businesses;
- generate more business opportunities;
- be a huge benefit to assist the development of the river in Plaquemines parish for the facility of the inward and outward movement of cargo;
- better serve the industry in southern Plaquemines Parish.

Concerns about an Air Cargo Facility in Plaquemines Parish include:

- Increased traffic
- Increased noise
- Potential residential encroachment
- The potential hurdle of the landing facility—currently does not allow bigger planes to land at night which could be detrimental to time sensitive shipments.
- No cases of civilian using Naval bases so the process for approval may be arduous
- Geographic limitations
- Lack of infrastructure

Projections

In assessing the potential for an air cargo facility in Plaquemines Parish, TMG employed several methods of analysis, including trend analyses, reviews of institutional forecasts, and a market fair share analysis¹. Were 4,000,000 square feet of cargo facilities developed (approximately ½ devoted to ramps and apron, ½ for cargo space), the volume of air cargo handled could potentially range from nearly 138 million

¹ Preferred methods of analysis of air cargo facilities, as detailed in the *Guidebook for Air Cargo Facility Planning and Development*, include Time-Series Trend Analysis, Regression Analysis, Market Share Analysis, Institutional Forecasts, and Operations Forecasts. *Air Cargo Facility Planning and Development*. Airport Cooperative Research Program. Transportation Research Board. National Academies of Science, Engineering, and Medicine, 2015. <https://www.nap.edu>



pounds per year to over 971 million pounds per year, for an average of between 10 and 67 operations per day.

Scenario 1 (LOW) models the proposed Plaquemines facilities at 4,000,000 square feet (estimated 2,000,000 square feet of ramp and 2,000,000 square feet of cargo space). To begin, the very conservative assumption was made that other airports in the region would grow to meet demand, to the extent that the current ratio of cargo facility square footage to cargo volume (197 lbs. per square foot) would be maintained. The proposed Plaquemines facility's fair share of air cargo in this case would equal 786,584,605 pounds, translating into approximately 19,919 operations per year², or an average of 55 operations per day. However, in Scenario 1 (LOW), the proposed facility's capture of fair share was modeled at less than 100%. If the facility were to operate at a significant discount to fair share, to match the relative poor performance of the New Orleans airport (18% of fair share), the result would be 137,917,533 pounds of air cargo in 2020, or an estimated 3,493 operations, averaging 10 operations per day.

Scenario 2 (MID) models the case wherein the proposed 4,000,000 square foot facility operates in an environment where new competition enters the market equal to meet demand (ratio of air cargo to facilities and ramp remains constant at 197 lbs./sq. ft.), and Plaquemines is capable of capturing its fair share of that demand. In this scenario, proposed Plaquemines facility's fair share of air cargo would equal 786,584,605 pounds, translating into approximately 19,919 operations per year, or an average of 55 operations per day.

The most aggressive model run is Scenario 3 (HIGH). In this model, the 4,000,000-square foot facility is modeled to operate in an environment wherein no new competition comes on line in the region, and Plaquemines is capable of capturing its fair share of demand. Under these very optimistic assumptions, the facility's fair share of the regional air cargo differs with each growth projection.

In the Baseline case for cargo growth, a total of 20.4 billion pounds of air cargo is expected to be transported in the region in 2020. If no new competition were to come on line, and the Plaquemines facility captured 100% of its fair share of that demand, it would translate into over 850 million pounds of air cargo, for approximately 21,536 operations, or an average of 59 operations per day. In the most aggressive growth assumption, the facility could potentially handle 971 million pounds of cargo in 2020, or an estimated average of 67 operations per day.

² Proprietary data from the Louis Armstrong New Orleans International Airport was reviewed in terms of the average cargo weight per all-cargo operation. These operations largely included flights by FedEx and UPS, but also included other smaller cargo operators. On average, these flights carried 39,488 pounds of cargo (includes both arrivals and departures). This figure was applied to projected cargo weight to arrive at the number of aircraft operations.



Summary of Model Projections for Plaquemines Total Air Cargo and Operations, 2020

Model	Plaquemines Air Cargo Facilities (sq. ft.)	Plaquemines Capture of Fair Share	Potential Air Cargo (lbs.)	Potential Average Daily Operations
Scenario 1 LOW	4,000,000	18%	137,917,533	10
Scenario 2 MID	4,000,000	100%	786,584,605	55
Scenario 3 HIGH				
Baseline Growth	4,000,000	100%	850,426,774	59
Low Growth	4,000,000	100%	917,443,783	64
Med Growth	4,000,000	100%	948,445,354	66
High Growth	4,000,000	100%	971,309,428	67

Source: TMG Consulting analysis and projections

Trip generation analyses were generated considering the range of potential cargo volume based on the Institute of Transportation Engineers (ITE) Trip Generation Manual 9th Edition and ITE’s Transportation Planning Handbook 4th Edition. The analyses for trips generated from the cargo facility are minimal and should not present enough new trips to warrant a Level of Service change. The following table details the analysis of trip generation for the study area under *Scenario 3 Med Growth*.



Trip Generation Analysis of Cargo Weight Scenario 3 Med Growth

Truck Type	Cargo Weight (100% Factor)	Cargo Weight (50% Factor)	Daily Activity			
			Route Assignment	Route % Split	Daily Trips (100% Factor)	Impact on Existing Network
Single Unit Truck 12% Capture						
3 Axle Single Unit	31,876	15,938	Hwy 23 Southbound	10	2	No Impact
3 Axle Single Unit	79,792	39,896	Hwy 23 Northbound	25	4	No Impact
3 Axle Single Unit	199,988	99,994	Peters Rd Extension	65	9	No Impact
22,500 lbs max per trip						
Four Axle Tractor Trailer 52% Capture						
2 Axle Tractor/2 Axle Trailer	137,994	68,997	Hwy 23 Southbound	10	5	No Impact
2 Axle Tractor/2 Axle Trailer	276,988	138,494	Hwy 23 Northbound	20	9	No Impact
2 Axle Tractor/2 Axle Trailer	924,952	462,476	Peters Rd Extension	70	28	No Impact
33,000 lbs max per trip						
5 Axle Tractor Trailer 36% Capture						
3 Axle Tractor/2 Axle Trailer	47,660	23,830	Hwy 23 Southbound	5	2	No Impact
3 Axle Tractor/2 Axle Trailer	143,480	71,740	Hwy 23 Northbound	15	4	No Impact
3 Axle Tractor/2 Axle Trailer	755,750	377,875	Peters Rd Extension	80	19	No Impact
40,000 lbs max per trip						
Total Daily Cargo Weight (rounded)	2,598,480					
Total Annual Cargo Weight	948,445,354					

Source Data: TMG; Analysis: Digital Engineering

Recommendations

It is the study team recommendation that the Parish of Plaquemines and NAS/JRB continue in the development of a potential air cargo facility at this site. Discussions with cargo operators, local, regional, and national businesses, and potential developers should commence at this time.



Section 1: Introduction

The purpose of this study is to evaluate and recommend development scenarios in the area immediately surrounding the Naval Air Station Joint Reserve Base New Orleans (NAS/JRB) in Plaquemines Parish, Louisiana. The Project Area is bounded by the Intracoastal Waterway to the west, Louisiana Highway 23 to the north, the Mississippi River to the east, and Hero Canal to the south. The near-future completion of several ongoing transportation improvements in this area is expected to generate growth, particularly in regard to light industrial and inter-modal transportation uses. Further, NAS/JRB is interested in realigning its overall usage to include select private development coordination, including the development of an Air Cargo Facility on adjacent privately-owned land. Therefore, a managed growth plan for a potential Air Cargo Facility and industrial campus, including land use and transportation components is included herein.

The preferred scenario addresses the mix and intensity of land uses, as well as strategies to ensure compatible transitions between different development patterns (e.g., building and site design standards, transitions in scale and intensity, use-based buffering standards, transportation access and connectivity standards), how to efficiently move cargo in all modes of transportation, what the demands could be for water and wastewater, and how to utilize the available raw land in an efficient and cost effective manner for stormwater management. While there remains uncertainty about the precise arrangement of land uses and cargo facility, the following elements reflect a shared vision for the future:

- A vibrant economic engine that builds on existing and planned amenities to attract cargo related businesses;
- high quality development that is sustainable through the integration of a joint use;
- and an enhanced multi-modal facility.

1.1 Air Cargo

With a projected population of over 324 million³ as of January 2017, there is a high demand for effective freight movement for our nation’s growing consumer base. Freight is moved through one, or a combination of, four primary modes: truck, rail, water, and air. Mode choices are based on a variety of factors, including but not limited to: type of good, geographic location of origin and destination, time sensitivity, and hazardous nature.

In 2015, a total of 11.3 million tons of freight was moved by air in the United States⁴, and this figure is expected to climb over time.⁵

1.2 Development Site

1.2.1 Location

The Project Area (see *Figure 1*) is bounded by the Intracoastal Waterway to the west, Louisiana Highway 23 to the north, the Mississippi River to the east, and Hero Canal to the south. The economic data provided by the Regional Planning Commission for this study includes the Harvey Canal Industrial area in Jefferson Parish, the Bayou Barataria Industrial area in Plaquemines Parish, the LA 23 corridor from LA 3017 (Engineers Road) to West Peter St., and the NAS JRB.

³ United States Census Bureau. Population Clock and Population Estimates (Exact figure reported as 324,309,805) Jan 4 2017. Web.

⁴ Air Cargo Revenue Tons Enplaned, one ton of revenue cargo (freight or mail) loaded on an aircraft for one flight identified by the flight number, as reported by the Bureau of Transportation Statistics T100 Market data

⁵ United States Department of Transportation. *Freight Analysis Framework Data Tabulation*.

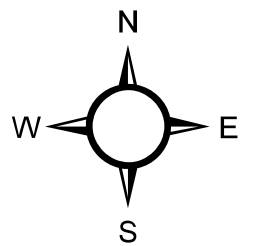
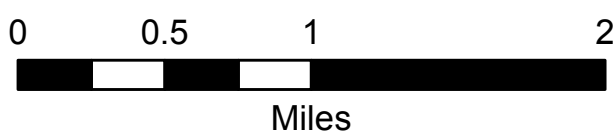


Figure 1: Plaquemines Parish Land Use and Transportation Sub-Area Analysis Potential Development Site



Legend

- RPC Defined Study Area
- Potential Development Site



Source (Citation) for 2014 three inch pixel Imagery (geotiffs)
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Imagery Information: The red, green, blue (true color) and near infrared four-band aerial imagery was captured in the winter and early spring of 2014 by Sanborn Map Company, Inc.

The imagery is projected to UTM 15 NAD 83; unit of measure is meters. The spatial resolution is approximately a three inch pixel. Any use of the data must be accompanied with this citation and accompanying seals and logos embedded within.

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1.3 Proposed Development

1.3.1 Potential Cargo Airport

Due to the anticipated transportation improvements in the area it is practical to consider the feasibility of an air cargo facility that cooperatively accesses and uses the NAS/JRB. The projects, which will be completed in the near future, will result in increased connectivity and access to the study area, allowing for greater availability of civilian use of the airfield infrastructure to maintain air cargo activity.



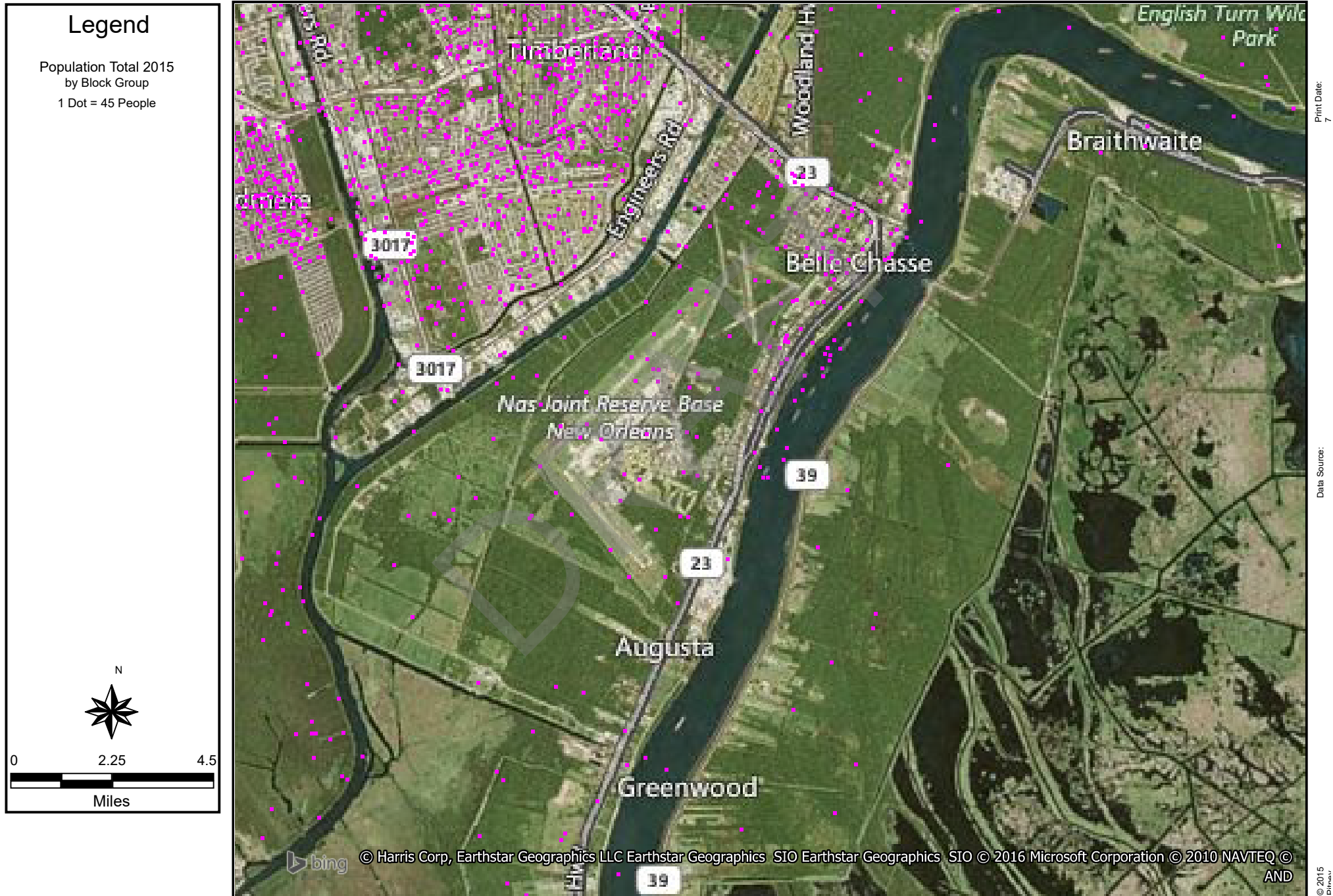
Section 2: Economic and Demographic Analysis

The following section details the size of the local population and business makeup in the area surrounding the proposed Plaquemines Parish Air Cargo Facility at the Naval Air Station Joint Reserve Base (NAS/JRB). For the purpose of this analysis, economic data provided by the Regional Planning Commission for the project area, bounded by the Intracoastal Waterway to the west, Louisiana Highway 23 to the north, the Mississippi River to the east, and Hero Canal to the south, includes the Harvey Canal Industrial area in Jefferson Parish, the Bayou Barataria Industrial area in Plaquemines Parish, the LA 23 corridor from LA 3017 (Engineers Road) to W. Peter St., and the NAS/JRB and data drawn from Pitney Bowes, Inc.'s AnySite location intelligence software for Plaquemines, St. Bernard, Orleans and Jefferson Parishes, the state of Louisiana and the nation are utilized.

2.1 Total Population

The following map, *Figure 2*, depicts the population density of the area surrounding the proposed Plaquemines Parish Air Cargo Facility at the Naval Air Station Joint Reserve Base (NAS/JRB). The subsequent tables and charts detail the demographic statistics and forecasts for the regions surrounding the proposed project.

Figure 2: Plaquemines Parish Land Use and Transportation Sub-Area Analysis Population Map



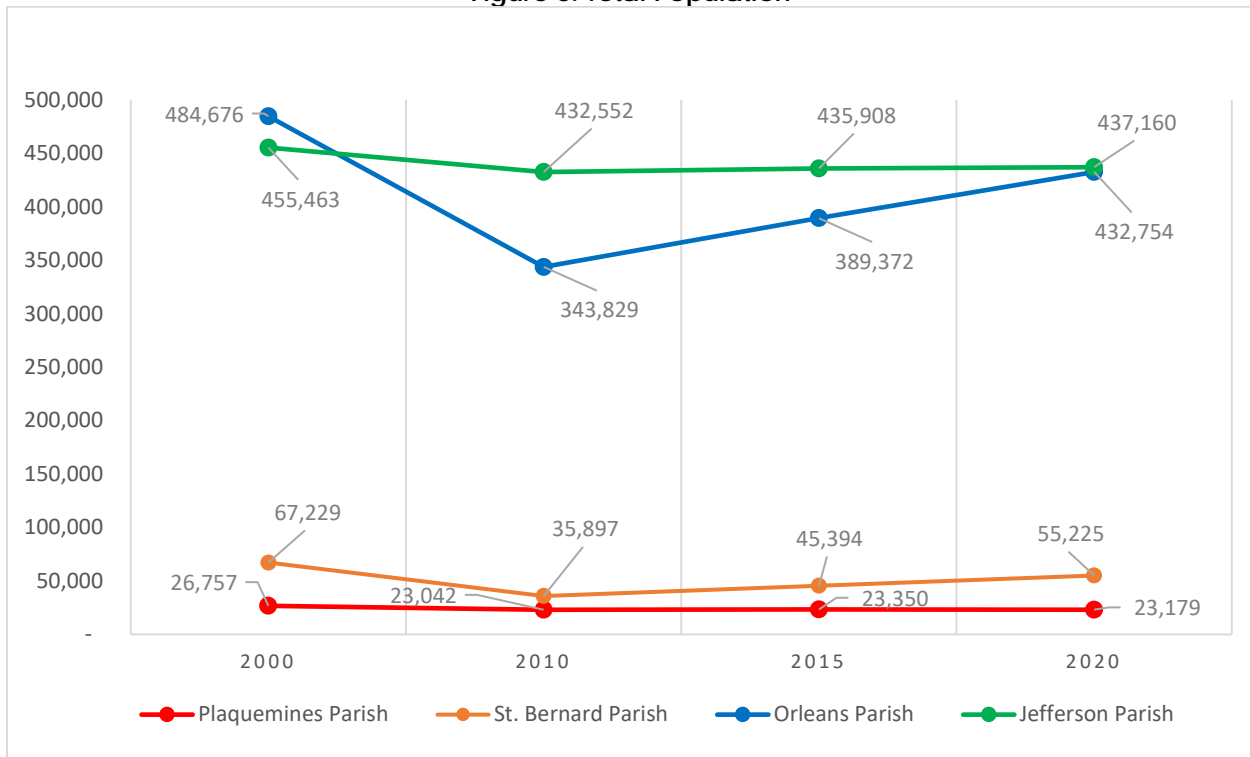
In 2015, the most recent year for which data were available, Plaquemines Parish had a population of 23,179 residents, as shown in *Table 1*. Independent population projections indicate a slight decrease in population, approximately 0.15% annually, by 2020. As did the surrounding parishes, Plaquemines experienced population losses attributable to the flooding and devastation resultant from levee failures after Hurricanes Katrina and Rita. To date, Plaquemines Parish and its neighbors have not yet reached pre-storm population levels, and are not projected to do so by 2020. *Table 1* details the total population in Plaquemines, St. Bernard, Orleans and Jefferson Parishes, as well as the state of Louisiana and the nation in 2000, 2010, 2015, and as projected for 2020. The compounded annual growth rates, or average annual growth rates (A.A.G.) between periods are also shown.

Table 1: Total Population

Location	2000	2010	2015	2020	A.A.G. 2000-2010	A.A.G. 2010-2015	A.A.G. 2015-2020
Plaquemines Parish	26,757	23,042	23,350	23,179	-1.48%	0.27%	-0.15%
St. Bernard Parish	67,229	35,897	45,394	55,225	-6.08%	4.81%	4.00%
Orleans Parish	484,676	343,829	389,372	432,754	-3.38%	2.52%	2.14%
Jefferson Parish	455,463	432,552	435,908	437,160	-0.51%	0.15%	0.06%
State of Louisiana	4,468,974	4,533,372	4,671,338	4,813,825	0.14%	0.60%	0.60%
United States	281,421,677	308,745,538	321,223,644	334,184,347	0.93%	0.80%	0.79%

Source: AnySite, TMG Consulting analysis

Figure 3: Total Population



Source: AnySite; TMG Consulting analysis

2.2 Median Household Income

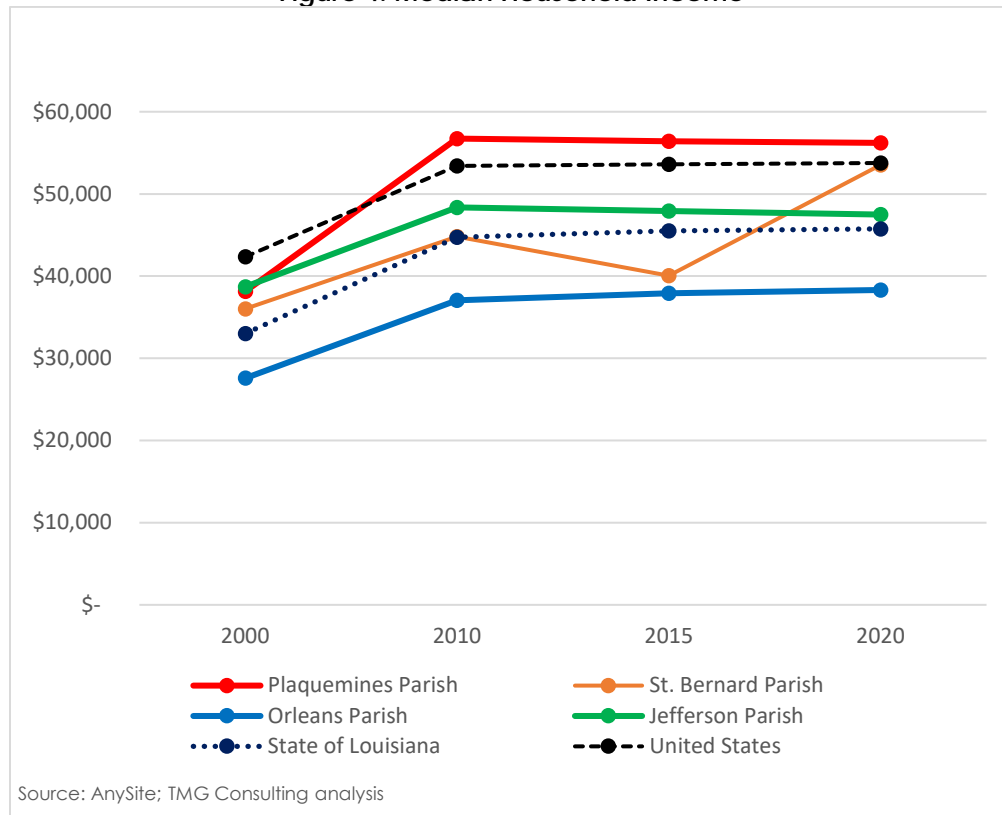
Table 2 and **Figure 4** express the median household income for Plaquemines Parish as well as the Parishes of St. Bernard, Orleans, and Jefferson, the state of Louisiana and the nation. Median household income for Plaquemines Parish residents was \$38,140 in 2000 growing to \$56,419 by 2015. Plaquemines Parish median household income experienced an average annual growth rate of 4.05% between 2000 to 2010 and slight decline between 2010 to 2015. Plaquemines Parish has the highest median income among the parishes in the region, the state, and the nation for much of the study period. Median income in Plaquemines is projected to decline marginally by 2020, while remaining the highest among the comparable set. **Table 2** details these reported income levels as well as projections for 2020.

Table 2: Median Household Income

Location	2000	2010	2015	2020	A.A.G. 2000-2010	A.A.G. 2010-2015	A.A.G. 2015-2020
Plaquemines Parish	\$38,140	\$56,732	\$56,419	\$56,221	4.05%	-0.11%	-0.07%
St. Bernard Parish	\$36,020	\$44,799	\$40,053	\$53,529	2.21%	-2.21%	5.97%
Orleans Parish	\$27,581	\$37,050	\$37,901	\$38,312	3.00%	0.46%	0.22%
Jefferson Parish	\$38,707	\$48,360	\$47,921	\$47,502	2.25%	-0.18%	-0.18%
State of Louisiana	\$33,015	\$44,735	\$45,501	\$45,749	3.08%	0.34%	0.11%
United States	\$42,350	\$53,404	\$53,608	\$53,764	2.35%	0.08%	0.06%

Source: AnySite, TMG Consulting analysis

Figure 4: Median Household Income



2.3 Average Household Income

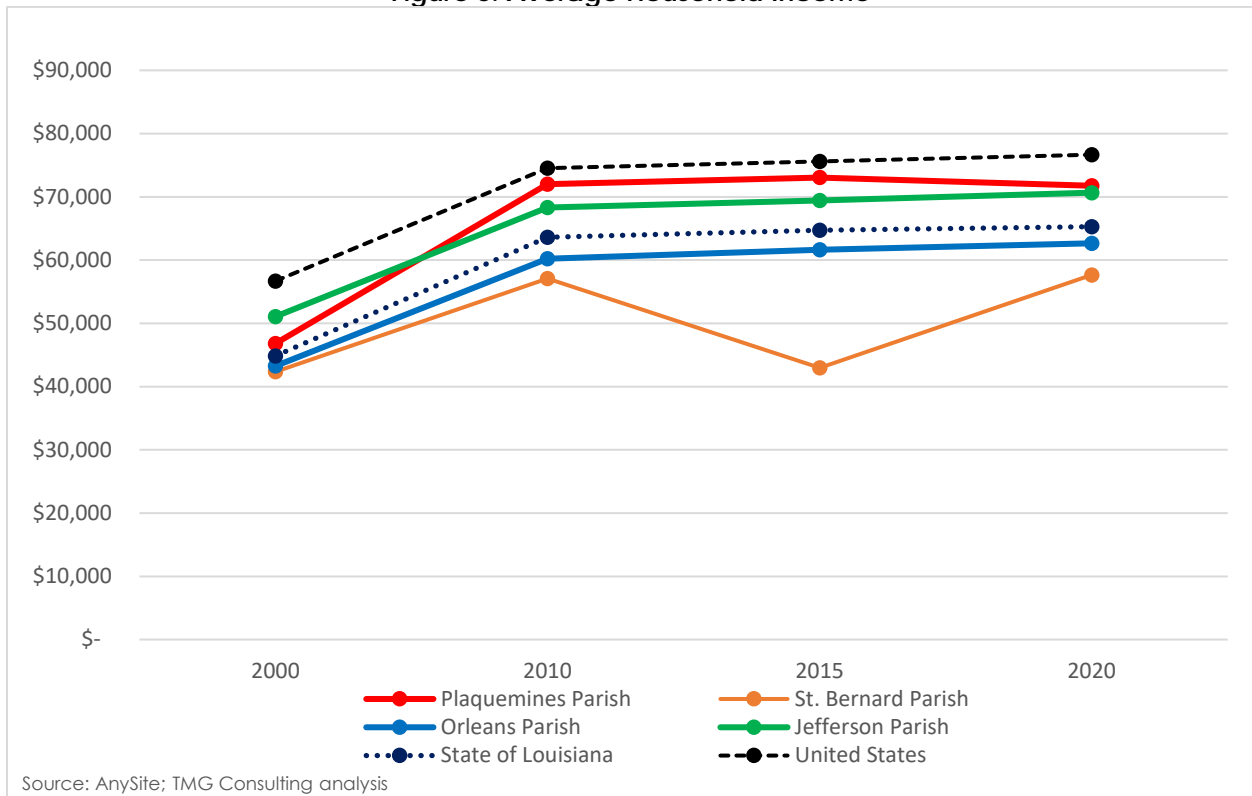
Plaquemines Parish had the highest regional average household income for 2010 and 2015 (\$72,014 and \$73,040 respectively), an almost identical trend as described for median household income exists for average household income. Plaquemines Parish’s 2000 average household income was slightly below that of Jefferson Parish, but higher than St. Bernard and Orleans Parish, and the state of Louisiana. Plaquemines Parish showed a significant increase in average income between 2000 and 2010 of 4.05% followed by a fairly stabilized rate - a trend following regional, state and national statistics. While income for the region is significantly below national averages, Plaquemines Parish is the leader in regional and state average household income.

Table 3: Average Household Income

Location	2000	2010	2015	2020	A.A.G. 2000-2010	A.A.G. 2010-2015	A.A.G. 2015-2020
Plaquemines Parish	\$46,815	\$72,014	\$73,040	\$71,770	4.40%	0.28%	-0.35%
St. Bernard Parish	\$42,343	\$57,054	\$42,957	\$57,652	3.03%	-5.52%	6.06%
Orleans Parish	\$43,254	\$60,194	\$61,606	\$62,649	3.36%	0.46%	0.34%
Jefferson Parish	\$51,069	\$68,299	\$69,430	\$70,655	2.95%	0.33%	0.35%
State of Louisiana	\$44,855	\$63,599	\$64,726	\$65,276	3.55%	0.35%	0.17%
United States	\$56,690	\$74,549	\$75,572	\$76,660	2.78%	0.27%	0.29%

Source: AnySite, TMG Consulting analysis

Figure 5: Average Household Income



2.4 Area Employment

2.4.1 Employees

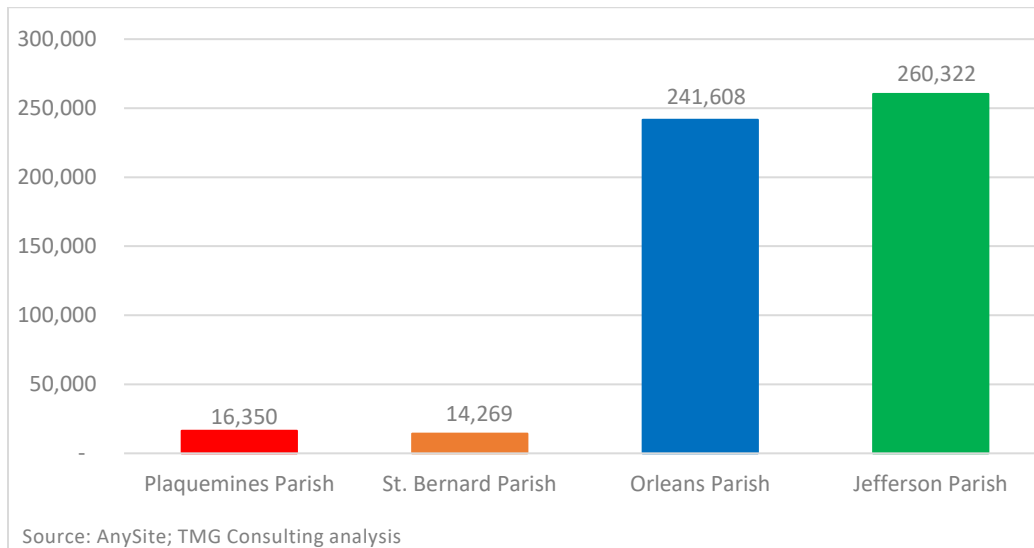
Despite having a lower population than neighboring St. Bernard Parish, Plaquemines Parish has over 2,000 more employees working in the parish - a total of 16,350 in 2015. This figure reflects the labor force in Plaquemines Parish, and may include commuters from the region. This assessment that Plaquemines Parish is a regional employer, pulling workers from not just the Parish but from the region is supported by stakeholder engagement, *Section 4: Stakeholder Participation*, which indicated 42% of strategic stakeholder representatives reside in Plaquemines Parish. Regionally, Orleans and Jefferson Parishes employ the highest number of employees with over 500,000 employees combined. Plaquemines Parish employs about 7% of the total number of employees working in Orleans Parish yet has only 6% of the total population that Orleans Parish does. *Table 4* and *Figure 6* depict the regional composition of employment.

Table 4: 2015 Total Employees

2015 Total: Employees (NAICS)	
Plaquemines Parish	16,350
St. Bernard Parish	14,269
Orleans Parish	241,608
Jefferson Parish	260,322
State of Louisiana	2,336,219
United States	161,269,391

Source: AnySite

Figure 6: 2015 Total Employees



2.4.1.1 Employees by Business

Table 5, Table 6, and Table 7 detail the number of employees within each business within the study area, bounded by the Intracoastal Waterway to the west, Louisiana Highway 23 to the north, the Mississippi River to the east, and Hero Canal to the south within Plaquemines, Jefferson, and Orleans Parishes. Data were provided by the Regional Planning Commission. InfoUSA business data is from InfoGroup. These data are a subset from a business source database purchased by the Regional Planning Commission for traffic modeling and economic development analysis following the parameters of the licensing agreement. The data was received and spatially enabled by the RPC. The data is available for purchase from InfoGroup, Inc. The data includes the Harvey Canal Industrial area in Jefferson Parish, the Bayou Barataria Industrial area in Plaquemines Parish, the LA 23 corridor from LA 3017 (Engineers Road) to W. Peter St., and the NAS/JRB.

Almost 60% of businesses within the study area in Plaquemines Parish are between one to four employees (408). Over one-fourth of businesses within the study area in Plaquemines Parish employ between 10 to 19 employees. Businesses in the study area in Plaquemines Parish that employ between 20 to 49 people identify themselves with NAICS descriptions of Insurance Agencies and Brokerages, Offices of Lawyers, Offices of Certified Public Accountants, Veterinary Services, Offices of Physicians, Offices of Dentists, and Offices of Physical, Occupation, and Speech Therapists. Plaquemines Parish Business Size by Employees is illustrated in Table 5 below.

Table 5: Plaquemines Parish Study Area, Business Size by Employees

Number of Employees	Number of Businesses	Percent of Businesses within Study Area
1-4	408	59.1%
5-9	30	4.3%
10-19	185	26.8%
20-49	19	2.8%
Did Not Respond	48	7.0%

Source: InfoUSA 2016 Business Data, Regional Planning Commission; TMG Consulting analysis

The provided data set also included portions of Jefferson and Orleans Parishes. Approximately half of businesses within the provided data set located in Jefferson Parish employ one to four employees. One third (33.8%) of businesses within the study area in Jefferson Parish employ 10-19 people. Business who employ five to nine persons comprise 7.5% of businesses within the study area in Jefferson Parish. Two businesses within the Jefferson Parish portion of the study area have 20-49 employees. This is illustrated in Table 6 below.

Table 6: Jefferson Parish Portion of Data Set, Business Size by Employees

Number of Employees	Number of Businesses	Percent of Businesses within Study Area
1-4	147	50.2%
5-9	22	7.5%
10-19	99	33.8%
20-49	2	0.7%
Did Not Respond	23	7.8%

Source: InfoUSA 2016 Business Data, Regional Planning Commission; TMG Consulting analysis

As mentioned previously, only 11 businesses in the data set are in Orleans Parish. Of these, about a quarter employ one to four employees. Only one business is in the five to nine range, and four businesses



employ 10-19 people. The largest two of these businesses are those identified as health-related offices; these employ 20-49 people each. The table below reflects these segments.

Table 7: Orleans Parish Portion of Data Set, Business Size by Employees

Number of Employees	Number of Businesses	Percent of Businesses within Study Area
1-4	3	27%
5-9	1	9%
10-19	4	36%
20-49	2	18%
Did Not Respond	1	9%

Source: InfoUSA 2016 Business Data, Regional Planning Commission; TMG Consulting analysis

Comprehensive Number of Employees per Business by NAICS codes can be found in *Section 8: Appendix. Businesses*

2.4.1.2 Number of Regional Businesses

The number of business establishments within the entirety of Plaquemines, St. Bernard, Orleans, and Jefferson Parishes was also assessed. Regionally, Plaquemines Parish represents the smallest number of business establishments regionally with a total of 1,138 businesses in 2015. This is lower than the 1,343 businesses in St. Bernard Parish, despite Plaquemines employing more total employees, indicating that the businesses in Plaquemines Parish are generally of larger size than the ones in St. Bernard Parish. Similar to the number of employees, Plaquemines Parish has fewer business establishments than Orleans and Jefferson Parishes. In this case, Plaquemines Parish has about 6% of the number of businesses in Orleans Parish and less than 5% of those in Jefferson Parish. The following table and chart depict this regional composition.

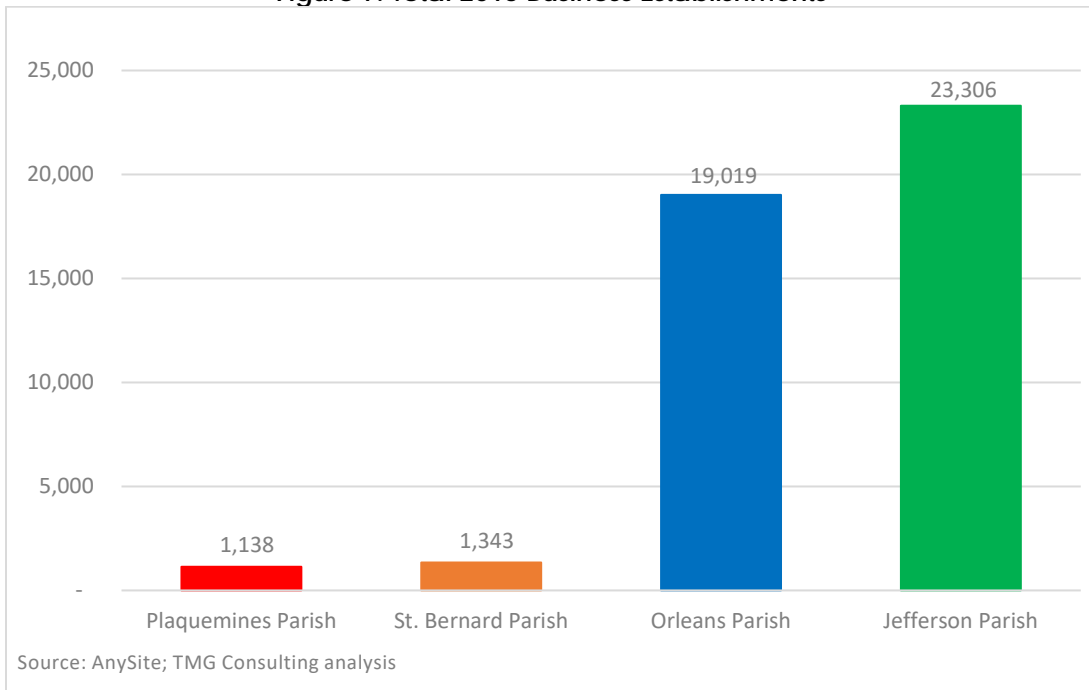
Table 8: Total 2015 Business Establishments

2015 Total Business Establishments	
Plaquemines Parish	1,138
St. Bernard Parish	1,343
Orleans Parish	19,019
Jefferson Parish	23,306
State of Louisiana	213,172
United States	14,419,786

Source: AnySite



Figure 7: Total 2015 Business Establishments



2.4.1.3 *Businesses by Sector*

Table 9 details the number of businesses by sector within the data set provided by the Regional Planning Commission, bounded by the Intracoastal Waterway to the west, Louisiana Highway 23 to the north, the Mississippi River to the east, and Hero Canal to the south within Plaquemines, Jefferson, and Orleans Parishes. Data were provided by the Regional Planning Commission. InfoUSA business data is from InfoGroup. These data are subset from a business source database purchased by the Regional Planning Commission for traffic modeling and economic development analysis following the parameters of the licensing agreement. The data was received and spatially enabled by the RPC. The data is available for purchase from InfoGroup, Inc. The data includes the Harvey Canal Industrial area in Jefferson Parish, the Bayou Barataria Industrial area in Plaquemines Parish, the LA 23 corridor from LA 3017 (Engineers Road) to W. Peter St., and the NAS JRB. In Plaquemines Parish, those sectors containing at least 15 businesses include: single-family home construction, site preparation contractors, full-service restaurants, legislative bodies, unclassified establishments, and at the top, commercial banking. There are more than 30 commercial banking businesses within the study area in Plaquemines Parish. Aside from the high number of banking institutions, there are many manufacturing, construction, and other industrial businesses in Plaquemines Parish which outnumber the retail and service-based businesses.

Table 9: Study Area Businesses by NAICS Code, Plaquemines Parish

NAICS Code	Description of Services	Number of Businesses within Study Area
522110	Commercial Banking	32
238910	Site Preparation Contractors	23
722511	Full-Service Restaurants	21
236115	New Single-Family Housing Construction (Exc For-Sale Bldrs)	18
921120	Legislative Bodies	16
423830	Industrial Machinery & Equipment Merchant Whlsrs	13
531210	Offices of Real Estate Agents & Brokers	12
541110	Offices of Lawyers	12
238220	Plumbing Htg & Air-Conditioning Contractors	11
813110	Religious Organizations	11
484230	Specialized Freight (Exc Used Gds) Trckng Lng-Dist	10
524210	Insurance Agencies & Brokerages	10
561730	Landscaping Services	10
441222	Boat Dealers	8
624410	Child Day Care Services	8
722513	Limited-Service Restaurants	8
811111	General Automotive Repair	8
447190	Other Gasoline Stations	7
541990	All Other Professional, Scientific/Technical Svcs	7
621111	Offices Of Physicians (Exc Mental Health Specs)	7
336611	Ship Building & Repairing	5
423990	Other Miscellaneous Durable Goods Merchant Whlsrs	5
441120	Used Car Dealers	5
487210	Scenic & Sightseeing Transportation, Water	5
488330	Navigational Services To Shipping	5
523930	Investment Advice	5
531130	Lessors Of Miniwarehouses & Self-Storage Units	5
532412	Construction, Mining/Forestry Mach/Equip Rntl/Lsng	5
541213	Tax Preparation Services	5
811121	Automotive Body, Paint & Interior Repair/Maint	5
811490	Other Personal & Household Goods Repair & Maint	5
812112	Beauty Salons	5
812113	Nail Salons	5
238160	Roofing Contractors	4
238210	Electrical Contr & Other Wiring Installation Contr	4
238210	Electrical Contr & Other Wiring Installation Contr	4
238320	Painting & Wall Covering Contractors	4
423810	Constr & Mining (Exc Oil Well) Mach/Equip Whlsrs	4
423930	Recyclable Material Merchant Wholesalers	4
441310	Automotive Parts & Accessories Stores	4
452990	All Other General Merchandise Stores	4
522130	Credit Unions	4
541211	Offices Of Certified Public Accountants	4
541380	Testing Laboratories	4
541940	Veterinary Services	4
611620	Sports & Recreation Instruction	4
713940	Fitness & Recreational Sports Centers	4
722410	Drinking Places Alcoholic Beverages	4
722515	Snack & Nonalcoholic Beverage Bars	4
213112	Support Activities For Oil & Gas Operations	3
236220	Commercial & Institutional Building Construction	3



NAICS Code	Description of Services	Number of Businesses within Study Area
325510	Paint & Coating Manufacturing	3
332312	Fabricated Structural Metal Manufacturing	3
332710	Machine Shops	3
423510	Metal Service Ctrs & Other Metal Merchant Whls	3
423610	Electrical Apparatus/Wiring Supls/Rel Equip Whlsrs	3
443142	Electronic Stores	3
444190	Other Building Material Dealers	3
448190	Other Clothing Stores	3
483211	Inland Water Freight Transportation	3
511110	Newspaper Publishers	3
532111	Passenger Car Rental	3
532310	General Rental Centers	3
541310	Architectural Services	3
541330	Engineering Services	3
541613	Marketing Consulting Services	3
541614	Process, Physical Distr/Logistics Consulting Svcs	3
541711	Research & Development In Biotechnology	3
562219	Other Nonhazardous Waste Treatment & Disposal	3
621493	Freestanding Ambulatory Surgical & Emergency Ctrs	3
713930	Marinas	3
811412	Appliance Repair & Maintenance	3
812320	Dry cleaning & Laundry Svcs (Except Coin-Operated)	3
211111	Crude Petroleum & Natural Gas Extraction	2
213111	Drilling Oil & Gas Wells	2
238190	Other Foundation/Structure & Bldg Exterior Contrs	2
238990	All Other Specialty Trade Contractors	2
324110	Petroleum Refineries	2
333120	Construction Machinery Manufacturing	2
333415	Ac Refrigeration & Forced Air Heating	2
333611	Turbine & Turbine Generator Set Units Mfg	2
333618	Other Engine Equipment Manufacturing	2
333911	Pump & Pumping Equipment Manufacturing	2
333999	All Other Misc General Purpose Machinery Mfg	2
334512	Automatic Environmental Control Manufacturing	2
339910	Jewelry & Silverware Manufacturing	2
339950	Sign Manufacturing	2
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	2
423710	Hardware Merchant Wholesalers	2
423840	Industrial Supplies Merchant Wholesalers	2
423860	Transportation Equip/Supl (Exc Motor Vhcls) Whlsrs	2
423920	Toy & Hobby Goods & Supplies Merchant Wholesalers	2
445110	Supermarkets/Other Grocery (Exc Convenience) Strs	2
445220	Fish & Seafood Markets	2
446110	Pharmacies & Drug Stores	2
446191	Food (Health) Supplement Stores	2
453210	Office Supplies & Stationery Stores	2
453991	Tobacco Stores	2
453998	All Other Misc Store Retailers (Exc Tobacco Strs)	2
488410	Motor Vehicle Towing	2
488510	Freight Transportation Arrangement	2
519120	Libraries & Archives	2
522291	Consumer Lending	2
524126	Direct Property & Casualty Insurance Carriers	2
531311	Residential Property Managers	2



Plaquemines Land Use and Transportation Sub-Area Analysis

NAICS Code	Description of Services	Number of Businesses within Study Area
532299	All Other Consumer Goods Rental	2
532411	Coml Air, Rail/Water Trnsprtn Equip Rental/Leasing	2
541219	Other Accounting Services	2
561110	Office Administrative Services	2
561492	Court Reporting & Stenotype Services	2
561510	Travel Agencies	2
561710	Exterminating & Pest Control Services	2
561990	All Other Support Services	2
562910	Remediation Services	2
562991	Septic Tank & Related Services	2
611110	Elementary & Secondary Schools	2
621210	Offices Of Dentists	2
621399	Offices Of All Other Misc Health Practitioners	2
621999	All Other Misc Ambulatory Health Care Services	2
713990	All Other Amusement & Recreation Industries	2
721110	Hotels (Except Casino Hotels) & Motels	2
811310	Coml/Ind Mach/Equip (Exc Auto/Electrnc) Rpr/Maint	2
812111	Barber Shops	2
812199	Other Personal Care Services	2
812910	Pet Care (Except Veterinary) Services	2
922120	Police Protection	2
928110	National Security	2
999990	Unclassified Establishments	2
111998	All Other Miscellaneous Crop Farming	1
221118	Other Electric Power Generation	1
221122	Electric Power Distribution	1
237110	Water & Sewer Line & Related Structures Constr	1
237130	Power & Comm Line & Related Structures Constr	1
237990	Other Heavy & Civil Engineering Construction	1
238110	Poured Concrete Foundation & Structure Contractors	1
238290	Other Building Equip Contractors	1
238330	Flooring Contractors	1
238340	Tile & Terrazzo Contractors	1
238390	Other Building Finishing Contractors	1
311919	Other Snack Food Manufacturing	1
312230	Tobacco Manufacturing	1
314999	All Other Miscellaneous Textile Product Mills	1
323111	Commercial Printing (Except Screen & Books)	1
325120	Industrial Gas Manufacturing	1
331110	Iron & Steel Mills & Ferroalloy Manufacturing	1
332111	Iron & Steel Forging	1
332618	Other Fabricated Wire Product Manufacturing	1
332812	Metal Coating & Non-Precious Engraving	1
332996	Fabricated Pipe & Pipe Fitting Manufacturing	1
333241	Food Product Machinery Manufacturing	1
333613	Mechanical Power Transmission Equipment Mfg	1
333923	Overhead Trvng Crane, Hoist & Monorail System Mfg	1
335312	Motor & Generator Manufacturing	1
335313	Switchgear & Switchboard Apparatus Manufacturing	1
336510	Railroad Rolling Stock Manufacturing	1
336612	Boat Building	1
339991	Gasket, Packing & Sealing Device Manufacturing	1
339999	All Other Miscellaneous Manufacturing	1
423120	Motor Vehicle Supplies & New Parts Merchant Whlsrs	1



NAICS Code	Description of Services	Number of Businesses within Study Area
423220	Home Furnishing Merchant Wholesalers	1
423850	Service Establishment Equip/Supls Merchant Whlsrs	1
424480	Fresh Fruit & Vegetable Merchant Wholesalers	1
424690	Other Chemical & Allied Products Merchant Whlsrs	1
424820	Wine & Distilled Alcoholic Beverage Mrchnt Whlsrs	1
424950	Paint, Varnish & Supplies Merchant Wholesalers	1
444110	Home Centers	1
444130	Hardware Stores	1
444220	Nursery, Garden Center & Farm Supply Stores	1
445120	Convenience Stores	1
445230	Fruit & Vegetable Markets	1
446130	Optical Goods Stores	1
448120	Women's Clothing Stores	1
448140	Family Clothing Stores	1
448310	Jewelry Stores	1
451110	Sporting Goods Stores	1
453110	Florists	1
453220	Gift, Novelty & Souvenir Stores	1
453310	Used Merchandise Stores	1
484110	General Freight Trucking, Local	1
488119	Other Airport Operations	1
488190	Other Support Activities For-Air Transportation	1
491110	Postal Service	1
493190	Other Warehousing & Storage	1
511120	Periodical Publishers	1
511199	All Other Publishers	1
515120	Television Broadcasting	1
517210	Wireless Telecomms Carriers (Except Satellite)	1
517919	All Other Telecommunications	1
522292	Real Estate Credit	1
523910	Miscellaneous Intermediation	1
531110	Lessors Of Residential Buildings & Dwellings	1
531390	Other Activities Related To Real Estate	1
532120	Truck, Utility Trailer & Rv Rental & Leasing	1
532230	Video Tape & Disc Rental	1
532420	Office Machinery & Equipment Rental & Leasing	1
532490	Other Commercial & Industrial Mach/Equip Rntl/Lsng	1
541120	Offices Of Notaries	1
541350	Building Inspection Services	1
541430	Graphic Design Services	1
541490	Other Specialized Design Services	1
541612	Human Resources Consulting Services	1
541620	Environmental Consulting Services	1
541690	Other Scientific & Technical Consulting Services	1
541870	Advertising Material Distribution Services	1
541890	Other Services Related To Advertising	1
541921	Photography Studios, Portrait	1
561599	All Other Travel Arrangement/Reservation Services	1
561612	Security Guards & Patrol Services	1
561910	Packaging & Labeling Services	1
562119	Other Waste Collection	1
611310	Colleges, Universities & Professional Schools	1
611430	Professional & Management Devmnt Training	1
611512	Flight Training	1



NAICS Code	Description of Services	Number of Businesses within Study Area
611610	Fine Art Schools	1
621310	Offices Of Chiropractors	1
621340	Offices-Physical, Occpntl/Speech Thrpsts/Audlgsts	1
624110	Child & Youth Services	1
624190	Other Individual & Family Services	1
624310	Vocational Rehabilitation Services	1
711510	Independent Artists, Writers & Performers	1
712190	Nature Parks & Other Similar Institutions	1
713110	Amusement & Theme Parks	1
713210	Casinos (Except Casino Hotels)	1
713910	Golf Courses & Country Clubs	1
721211	Rv (Recreational Vehicle) Parks & Campgrounds	1
722320	Caterers	1
811118	Other Automotive Mechanical/Electrical Rpr/Maint	1
811122	Automotive Glass Replacement Shops	1
811191	Automotive Oil Change & Lubrication Shops	1
811192	Car Washes	1
812210	Funeral Homes & Funeral Services	1
813312	Environment, Conservation & Wildlife Organizations	1
813319	Other Social Advocacy Organizations	1
813910	Business Associations	1
922110	Courts	1
922130	Legal Counsel & Prosecution	1
922160	Fire Protection	1
926120	Regulation & Administration-Transportation Prgms	1

Source: InfoUSA 2016 Business Data, Regional Planning Commission

The data set which includes portions of Jefferson Parish includes at least 15 businesses in each of the following sectors: single-family home construction, site preparation contractors, and unclassified establishments, the largest of these sectors being single-family home construction with 17 businesses. Like Plaquemines, businesses within the Jefferson Parish portion of the study area tend to be in the industrial sector.



Table 10: Study Area Businesses by NAICS Code, Jefferson Parish

NAICS Code	Description of Services	Number of Businesses within Study Area
236115	New Single-Family Hsng Constr (Exc For-Sale Bldrs)	17
236115	New Single-Family Hsng Constr (Exc For-Sale Bldrs)	17
238910	Site Preparation Contractors	16
238910	Site Preparation Contractors	16
238910	Site Preparation Contractors	16
999990	Unclassified Establishments	15
423830	Industrial Machinery & Equipment Merchant Whlsrs	9
423830	Industrial Machinery & Equipment Merchant Whlsrs	9
484230	Specialized Freight (Exc Used Gds) Trckng Lng-Dist	8
484230	Specialized Freight (Exc Used Gds) Trckng Lng-Dist	8
484230	Specialized Freight (Exc Used Gds) Trckng Lng-Dist	8
522110	Commercial Banking	7
332710	Machine Shops	6
441222	Boat Dealers	6
441222	Boat Dealers	6
441222	Boat Dealers	6
561622	Locksmiths	6
561622	Locksmiths	6
811111	General Automotive Repair	6
811111	General Automotive Repair	6
811111	General Automotive Repair	6
336611	Ship Building & Repairing	5
336611	Ship Building & Repairing	5
336611	Ship Building & Repairing	5
532412	Construction, Mining/Forestry Mach/Equip Rntl/Lsng	5
532412	Construction, Mining/Forestry Mach/Equip Rntl/Lsng	5
238210	Electrical Contr & Other Wiring Installation Contr	4
238210	Electrical Contr & Other Wiring Installation Contr	4
238220	Plumbing Htg & Air-Conditioning Contractors	4
238220	Plumbing Htg & Air-Conditioning Contractors	4
238220	Plumbing Htg & Air-Conditioning Contractors	4
423510	Metal Service Ctrs & Other Metal Merchant Whls	4
423510	Metal Service Ctrs & Other Metal Merchant Whls	4
423840	Industrial Supplies Merchant Wholesalers	4
423840	Industrial Supplies Merchant Wholesalers	4
424720	Other Petroleum Merchant Wholesale	4
424720	Other Petroleum Merchant Wholesale	4
452990	All Other General Merchandise Stores	4
452990	All Other General Merchandise Stores	4
488330	Navigational Services To Shipping	4
488330	Navigational Services To Shipping	4
722511	Full-Service Restaurants	4
722511	Full-Service Restaurants	4
722511	Full-Service Restaurants	4
921120	Legislative Bodies	4
213112	Support Activities For Oil & Gas Operations	3
213112	Support Activities For Oil & Gas Operations	3
236220	Commercial & Institutional Building Construction	3
236220	Commercial & Institutional Building Construction	3
238990	All Other Specialty Trade Contractors	3
332919	Other Metal Valve & Pipe Fitting Manufacturing	3



Plaquemines Land Use and Transportation Sub-Area Analysis

NAICS Code	Description of Services	Number of Businesses within Study Area
336612	Boat Building	3
423610	Electrical Apparatus/Wiring Supls/Rel Equip Whlsrs	3
423610	Electrical Apparatus/Wiring Supls/Rel Equip Whlsrs	3
423990	Other Miscellaneous Durable Goods Merchant Whlsrs	3
423990	Other Miscellaneous Durable Goods Merchant Whlsrs	3
561730	Landscaping Services	3
611110	Elementary & Secondary Schools	3
611110	Elementary & Secondary Schools	3
611110	Elementary & Secondary Schools	3
811118	Other Automotive Mechanical/Electrical Rpr/Maint	3
811121	Automotive Body, Paint & Interior Repair/Maint	3
813110	Religious Organizations	3
813110	Religious Organizations	3
213111	Drilling Oil & Gas Wells	2
213111	Drilling Oil & Gas Wells	2
236118	Residential Remodelers	2
321918	Other Millwork (Including Flooring)	2
321918	Other Millwork (Including Flooring)	2
332312	Fabricated Structural Metal Manufacturing	2
332618	Other Fabricated Wire Product Manufacturing	2
423690	Other Electronic Parts & Equipment Merchant Whlsrs	2
423930	Recyclable Material Merchant Wholesalers	2
423930	Recyclable Material Merchant Wholesalers	2
444190	Other Building Material Dealers	2
448120	Women'S Clothing Stores	2
448120	Women'S Clothing Stores	2
453220	Gift, Novelty & Souvenir Stores	2
453220	Gift, Novelty & Souvenir Stores	2
488410	Motor Vehicle Towing	2
541213	Tax Preparation Services	2
561710	Exterminating & Pest Control Services	2
561720	Janitorial Services	2
561720	Janitorial Services	2
713930	Marinas	2
811310	Coml/Ind Mach/Equip (Exc Auto/Electrnc) Rpr/Maint	2
811420	Reupholstery & Furniture Repair	2
813319	Other Social Advocacy Organizations	2
813319	Other Social Advocacy Organizations	2
813910	Business Associations	2
237120	Oil & Gas Pipeline And Related Structures Constr	1
237210	Land Subdivision	1
237990	Other Heavy & Civil Engineering Construction	1
238330	Flooring Contractors	1
311999	All Other Miscellaneous Food Manufacturing	1
324110	Petroleum Refineries	1
327910	Abrasive Product Manufacturing	1
332510	Hardware Manufacturing	1
333132	Oil & Gas Field Machinery & Equipment Mfg	1
333611	Turbine & Turbine Generator Set Units Mfg	1
333618	Other Engine Equipment Manufacturing	1
333921	Elevator & Moving Stairway Manufacturing	1
333999	All Other Misc General Purpose Machinery Mfg	1
334111	Electronic Computer Manufacturing	1
334512	Automatic Environmental Control Manufacturing	1



Plaquemines Land Use and Transportation Sub-Area Analysis

NAICS Code	Description of Services	Number of Businesses within Study Area
339910	Jewelry & Silverware Manufacturing	1
339920	Sporting & Athletic Goods Manufacturing	1
339991	Gasket, Packing & Sealing Device Manufacturing	1
423130	Tire & Tube Merchant Wholesalers	1
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	1
423320	Brick, Stone/Related Constr Material Mrchnt Whlsrs	1
423720	Plumbing & Htg Equip/Supls (Hydronics) Mrchnt Whls	1
423860	Transportation Equip/Supl (Exc Motor Vhcls) Whlsrs	1
441120	Used Car Dealers	1
441228	Motorcycle, Atv & All Other Motor Vehicle Dealers	1
443142	Electronic Stores	1
444130	Hardware Stores	1
445120	Convenience Stores	1
445299	All Other Specialty Food Stores	1
446110	Pharmacies & Drug Stores	1
446199	All Other Health & Personal Care Stores	1
447190	Other Gasoline Stations	1
451110	Sporting Goods Stores	1
453110	Florists	1
453920	Art Dealers	1
454310	Fuel Dealers	1
482111	Line-Haul Railroads	1
485320	Limousine Service	1
485510	Charter Bus Industry	1
485999	All Other Transit & Ground Passenger Trnsprt	1
488490	Other Support Activities For Road Transportation	1
493110	General Warehousing & Storage	1
518210	Data Processing, Hosting & Related Services	1
522298	All Other Nondepository Credit Intermediation	1
524210	Insurance Agencies & Brokerages	1
531120	Lessors-Nonresidential Bldgs (Exc Miniwarehouses)	1
531190	Lessors Of Other Real Estate Property	1
531210	Offices Of Real Estate Agents & Brokers	1
541330	Engineering Services	1
541350	Building Inspection Services	1
541612	Human Resources Consulting Services	1
541618	Other Management Consulting Services	1
541690	Other Scientific & Technical Consulting Services	1
541870	Advertising Material Distribution Services	1
541940	Veterinary Services	1
561110	Office Administrative Services	1
561311	Employment Placement Agencies	1
561520	Tour Operators	1
561740	Carpet & Upholstery Cleaning Services	1
561790	Other Services To Buildings & Dwellings	1
562910	Remediation Services	1
611410	Business & Secretarial Schools	1
611692	Automobile Driving Schools	1
621999	All Other Misc Ambulatory Health Care Services	1
624110	Child & Youth Services	1
624190	Other Individual & Family Services	1
712190	Nature Parks & Other Similar Institutions	1
713210	Casinos (Except Casino Hotels)	1
722514	Cafeterias, Grill Buffets & Buffets	1



NAICS Code	Description of Services	Number of Businesses within Study Area
722515	Snack & Nonalcoholic Beverage Bars	1
811412	Appliance Repair & Maintenance	1
811490	Other Personal & Household Goods Repair & Maint	1
812111	Barber Shops	1
812199	Other Personal Care Services	1
812320	Drycleaning & Laundry Svcs (Except Coin-Operated)	1

Source: InfoUSA 2016 Business Data, Regional Planning Commission

There are 11 businesses in the data set within Orleans Parish, the largest sector being credit unions with three businesses. Unlike the industrially-heavy business sectors of Plaquemines and Jefferson Parishes, none of these 11 businesses in Orleans Parish are within the industrial sector, but rather offer general services ranging from medical to retail. There are a variety of business sectors in the study area ranging from industrial to personal services, all of which are included in the *Table 11*.

Table 11: Study Area Businesses by NAICS Code, Orleans Parish

NAICS Code	Description of Services	Number of Businesses within Study Area
522130	Credit Unions	3
532111	Civil & Social Organizations	1
532230	Legislative Bodies	1
561990	Passenger Car Rental	1
621111	Credit Unions	1
621399	Credit Unions	1
813410	All Other Support Services	1
921120	Unclassified Establishments	1
999990	Offices Of Physicians (Exc Mental Health Specs)	1

Source: InfoUSA 2016 Business Data, Regional Planning Commission

2.4.1.4 Revenues

Table 12 expresses the total payroll expenditures on a parish-wide level. Examining payroll spending per employee, Plaquemines Parish outperforms all regional parishes, the state and the nation with \$50,389 per employee. This is a particularly impressive statistic in comparison to Orleans Parish which was estimated at only \$32,998 for 2015 - over \$17,000 less per employee. The graph below illustrates this significant disparity.

Table 12: 2015 Payroll Expenditure per Employee

Location	Total Payroll Expenditures (2015)	Number of Employees (2015)	Payroll Expenditure per Employee
Plaquemines Parish	\$823,864,494	16,350	\$50,389
St. Bernard Parish	\$521,012,215	14,269	\$36,514
Orleans Parish	\$7,972,524,157	241,608	\$32,998
Jefferson Parish	\$11,000,086,522	260,322	\$42,256
State of Louisiana	\$95,523,145,603	2,336,219	\$40,888
United States	\$8,055,435,237,684	161,269,391	\$49,950

Source: AnySite, TMG Consulting analysis



Figure 8: 2015 Payroll Spending by Employees

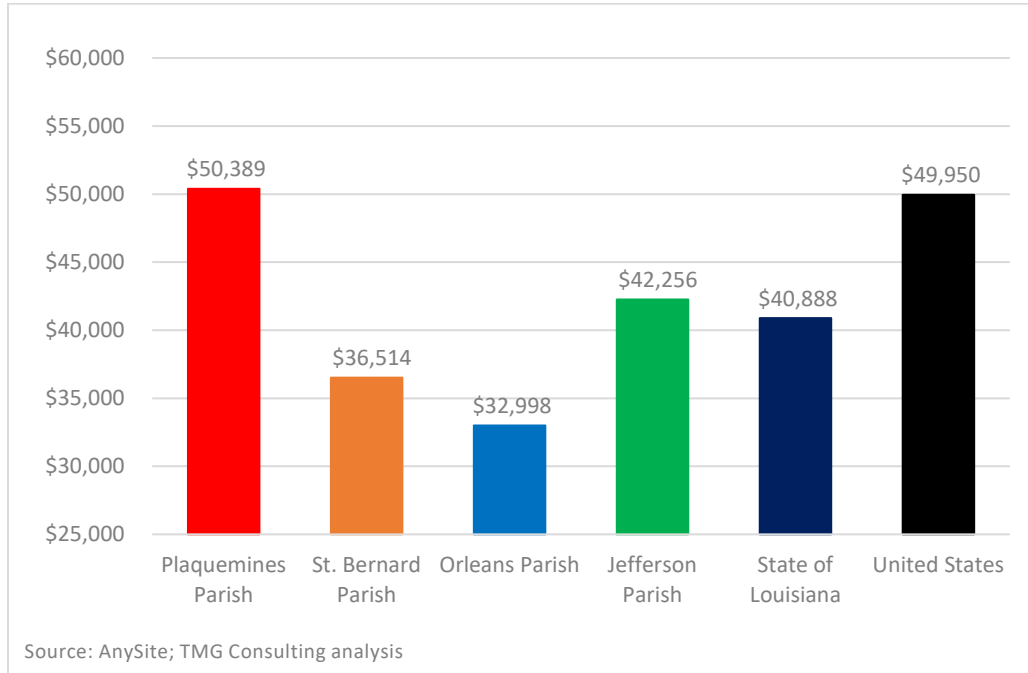


Figure 9: Plaquemines Parish Land Use and Transportation Sub-Area Analysis Businesses by Number of Employees



Legend
Businesses by Number of Employees
Plaquemines Aircargo InfoUSA 2016

- 1 - 10
- 11 - 50
- 51 - 100
- 101 - 250
- 251 - 500

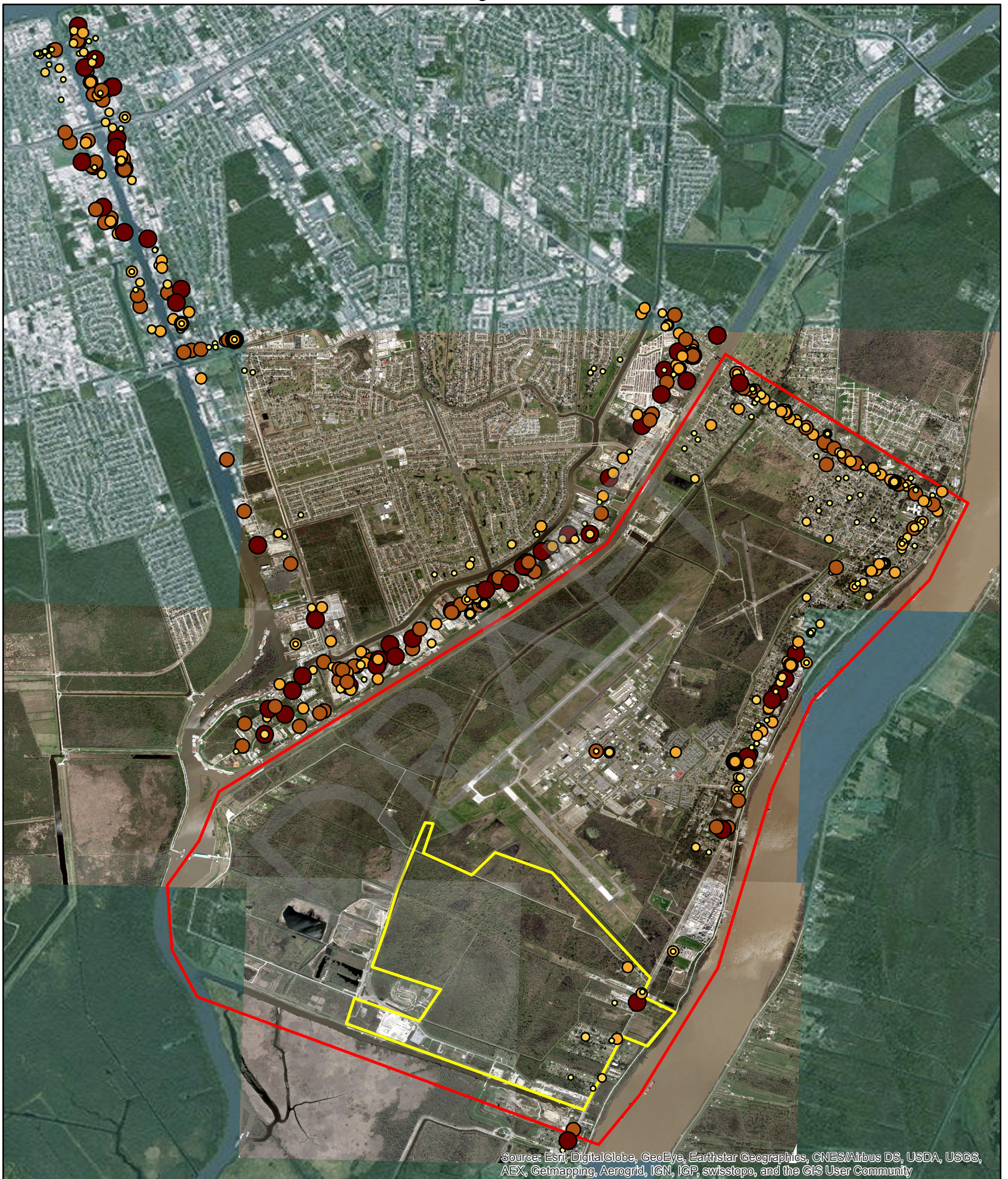
Potential Development Site

RPC Defined Study Area

0 0.5 1 2 Miles

Citation: InfoUSA 2016 Business Data
 InfoUSA business data is from InfoGroup. These data are subset from a business source database purchased by the Regional Planning Commission for traffic modeling and economic development analysis following the parameters of the licensing agreement. The data was received and spatially enabled by the RPC. The data is available for purchase from InfoGroup, Inc.

Figure 10: Plaquemines Parish Land Use and Transportation Sub-Area Analysis Businesses by Sales Volume



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

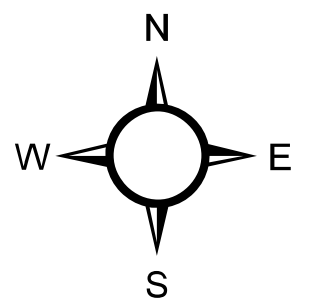
Legend Businesses by Sales Volume* Plaquemines Aircargo InfoUSA 2016

*In thousands of U.S. Dollars

- 26 - 500
- 501 - 1,000
- 1,001 - 2,500
- 2,501 - 5,000
- 5,001 - 10,000

- Potential Development Site
- RPC Defined Study Area

0 0.5 1 2 Miles



digital engineering

Source (Citation) for 2014 three inch map imagery (geotiff)
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Imagery Information: The red, green, blue (RGB) and near infrared four band aerial imagery was captured in the winter and early spring of 2014 by GeoEye, Inc.
The imagery is projected to UTM 18N UTM 83, unit of measure is meters. The spatial resolution is approximately a three inch pixel.
Any use of the data must be accompanied with this citation and accompanying scale and logo embedded within.

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Citation: InfoUSA 2016 Business Data Info USA business data is from InfoGroup. These data are subset from a business source database purchased by the Regional Planning Commission for traffic modeling and economic development analysis following the parameters of the licensing agreement. The data was received and spatially enabled by the RPC. The data is available for purchase from InfoGroup, Inc.



2.4.2 Unemployment Rate

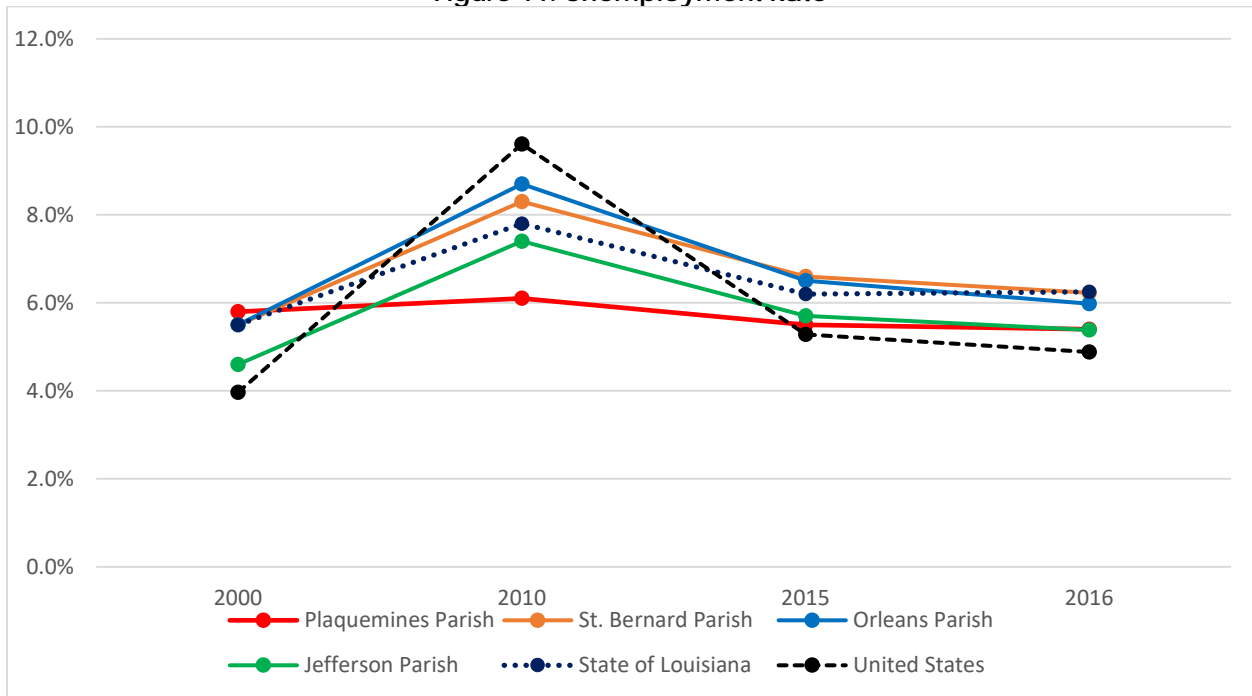
Plaquemines Parish experienced the lowest unemployment rate in the region, as well as the state of Louisiana as of November 2016 (5.4%), 2015 (5.5%), and 2010 (6.1%). This is impressive when considering Plaquemines Parish had the highest unemployment rate in the region, state, and nation in 2000. Plaquemines Parish's highest unemployment rate for the years analyzed was 6.1% in 2010. However, Plaquemines Parish's unemployment rate remains fairly stable throughout the 16-year period, even during the 2008 financial crisis which caused national unemployment to rise to 9.6% in 2010.

Table 13: Unemployment Rate

Location	2000	2010	2015	2016*
Plaquemines Parish	5.8%	6.1%	5.5%	5.4%
St. Bernard Parish	5.5%	8.3%	6.6%	6.2%
Orleans Parish	5.5%	8.7%	6.5%	6.0%
Jefferson Parish	4.6%	7.4%	5.7%	5.4%
State of Louisiana	5.5%	7.8%	6.2%	6.2%
United States	4.0%	9.6%	5.3%	4.9%

* Source: Labor Market Statistics, Local Area Unemployment Statistics Program January 2016-November 2016
 Source: Bureau of Labor Statistics, 2000, 2010 and 2015 Current Population Survey

Figure 11: Unemployment Rate



Source: Bureau of Labor Statistics, 2000, 2010 and 2015 Current Population Survey; Labor Market Statistics, Local Area Unemployment Statistics Program January 2016-November 2016

Section 3: Comparable Developments and Competition

In assessing the potential market for a cargo airport in Plaquemines Parish, TMG first obtained and reviewed multiple datasets. Data on cargo operations are compiled by individual airports, as well as numerous local, state, and federal agencies. Differing data sets include different data points, and consider differing aspects of the cargo industry. TMG analyzed these data sets, drawing conclusions from each. The following section of this study details some of the major findings from this analysis.

3.1 Cargo Industry

The historical demand for cargo operations was studied through the analysis of data from: Bureau of Transportation Statistics; the U.S. Army Corps of Engineers' Navigation Data Center; U.S. Census Bureau, Economic Indicators Division; Freight Analysis Framework, Center for Transportation Analysis; U.S. Department of Transportation, Research and Innovative Technology Administration (RITA), Bureau of Transportation Statistics; and individual ports and airports. Data sets covering cargo operations Worldwide, South, Central, and Latin America, the United States, the southern region of the United States, and specific locally competitive airports were assessed. Trends in South and Central America were also studied as this region could be a potential feeder market for cargo operations in Plaquemines Parish.

3.1.1 Worldwide

While the cargo data reported often differ from one source to another, the trends within the data are nevertheless telling. According to the Bureau of Transportation Statistics, over 23.5 million tons (47 million pounds) of air cargo were transported across the world in 2015 (Air Cargo Revenue Tons Enplaned⁶). This figure represents moderate growth of less than one percent over the previous year, but an average annual growth rate (CAGR) of 1.7% since 2012.

⁶ A revenue ton enplaned is one ton of revenue cargo (freight or mail) loaded on an aircraft for one flight identified by the flight number.



Table 14: Worldwide Air Cargo Revenue Tons Enplaned* (in thousands)

Year	Total	Growth %
2003	22,691.31	
2004	24,789.68	9.2%
2005	25,035.37	1.0%
2006	25,256.97	0.9%
2007	25,185.09	-0.3%
2008	23,018.34	-8.6%
2009	20,742.75	-9.9%
2010	23,043.14	11.1%
2011	22,844.28	-0.9%
2012	22,434.34	-1.8%
2013	22,479.41	0.2%
2014	23,401.62	4.1%
2015	23,578.63	0.8%
CAGR (2003-2015)		0.3%
CAGR (2012-2015)		1.7%

* A revenue ton enplaned is one ton of revenue cargo (freight or mail) loaded on an aircraft for one flight identified by the flight number.
 Source: Bureau of Transportation Statistics T100
 Market data; TMG Consulting analysis

Figure 12 shows the dramatic decline in air cargo revenue tons enplaned during the Great Recession, and the subsequent recovery that continued through 2015.

Figure 12: Worldwide Air Cargo Revenue Tons Enplaned (in thousands)



Source: Bureau of Transportation Statistics T100 Market data; TMG Consulting analysis

3.1.2 United States

Table 15 displays the Air Cargo Revenue Tons Enplaned in the United States and Latin America from 2003 through 2015.

Table 15: Air Cargo Revenue Tons Enplaned* (in thousands)

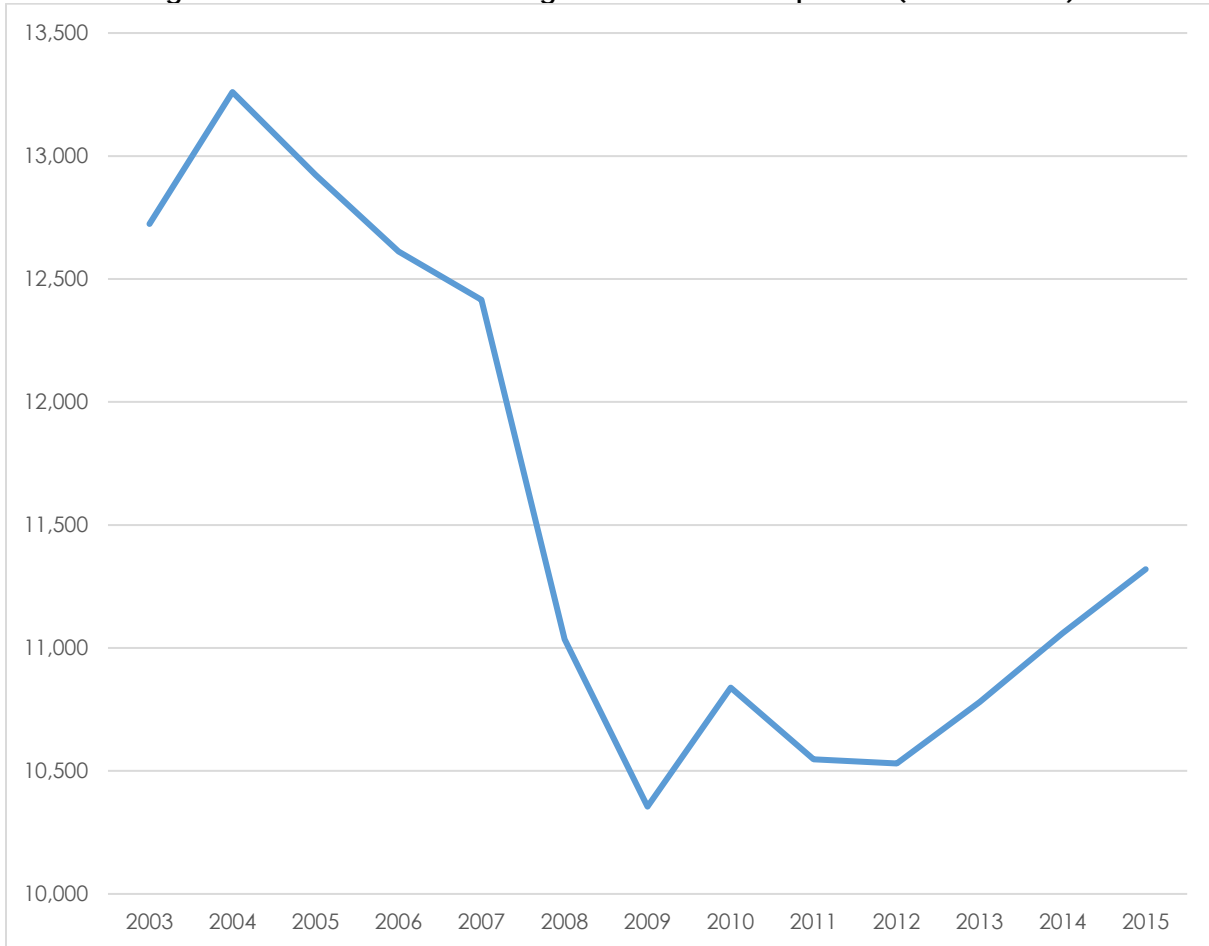
Year	United States	Growth %	Latin America	Growth %
2003	12,723.33		756.97	
2004	13,260.02	4.2%	850.75	12.4%
2005	12,922.90	-2.5%	924.28	8.6%
2006	12,611.58	-2.4%	953.30	3.1%
2007	12,415.12	-1.6%	1,111.45	16.6%
2008	11,034.61	-11.1%	1,038.72	-6.5%
2009	10,354.97	-6.2%	878.44	-15.4%
2010	10,838.98	4.7%	831.48	-5.3%
2011	10,546.71	-2.7%	768.47	-7.6%
2012	10,530.67	-0.2%	804.36	4.7%
2013	10,779.89	2.4%	822.31	2.2%
2014	11,059.59	2.6%	764.50	-7.0%
2015	11,320.64	2.4%	732.42	-4.2%
CAGR (2003-2015)		-1.0%	-0.3%	
CAGR (2012-2015)		2.4%	-3.1%	

* A revenue ton enplaned is one ton of revenue cargo (freight or mail) loaded on an aircraft for one flight identified by the flight number.

Source: Bureau of Transportation Statistics T100 Market data; TMG Consulting analysis

Figure 13 clearly illustrates the decline in air cargo operations in the United States during the Great Recession, with the lowest level posting in 2009. Air cargo operations in the United States remained low over the next five years, only exceeding pre-recession levels in 2015. By comparison, air cargo in Latin America was not as distinctly impacted by the recession in the United States. Air cargo operations in Latin America peaked in 2007, and have declined at an average annual rate (Compounded Annual Growth Rate, "CAGR") of 3.1% since 2012. These declines contrast with growth in the United States, at 2.4% CAGR from 2012 through 2015.

Figure 13: United States Air Cargo Revenue Tons Enplaned (in thousands)



Source: Bureau of Transportation Statistics T100 Market data; TMG Consulting analysis

Figure 14: Latin America Air Cargo Revenue Tons Enplaned (in thousands)



SOURCE: Bureau of Transportation Statistics T100 Market data; TMG Consulting analysis

TMG also reviewed data from the Federal Aviation Administration, which tracks the landed weight of cargo moving through U.S. airports.

Table 16 lists all cargo airports in the United States, sorted by landed weight in 2015. It must be noted that this data does not match data reported by the Bureau of Transportation Statistics, which reports only the weight of cargo, versus landed weight⁷ as reported by the FAA. By this measure, U.S. airports handled 150 billion pounds of cargo-carrying aircraft in 2015, up 6.4% from 141 billion in 2014.

⁷ "Landed weight" is the weight of aircraft transporting only cargo in intrastate, interstate, and foreign air transportation. https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/categories/



Table 16: All-Cargo Airports⁸ by Landed Weight: CY 2015

Rank	Locid	Airport Name	City	Hub	2015 Landed Weight (lbs.)	2014 Landed Weight (lbs.)	% Change
1	MEM	Memphis International	Memphis	S	22,679,195,919	22,774,592,279	-0.42%
2	ANC	Ted Stevens Anchorage International	Anchorage	M	17,139,250,601	15,867,941,046	8.01%
3	SDF	Louisville International-Standiford Field	Louisville	S	12,057,543,654	11,568,369,154	4.23%
4	ORD	Chicago O'Hare International	Chicago	L	9,063,649,529	7,541,411,779	20.19%
5	MIA	Miami International	Miami	L	7,630,761,702	7,192,790,882	6.09%
6	LAX	Los Angeles International	Los Angeles	L	6,585,460,219	4,297,359,912	53.24%
7	IND	Indianapolis International	Indianapolis	M	5,324,737,760	5,355,984,715	-0.58%
8	CVG	Cincinnati/Northern Kentucky International	Greater Cincinnati International Airport	M	4,019,745,706	3,644,404,568	10.30%
9	DFW	Dallas-Fort Worth International	Fort Worth	L	3,328,784,075	3,140,733,270	5.99%
10	JFK	John F Kennedy International	New York	L	3,255,916,985	3,170,996,874	2.68%
11	OAK	Metropolitan Oakland International	Oakland	M	3,051,610,036	2,954,355,995	3.29%
12	EWR	Newark Liberty International	Newark	L	2,890,156,090	2,499,283,148	15.64%
13	ONT	Ontario International	Ontario	M	2,588,841,276	2,360,845,923	9.66%
14	ATL	Hartsfield - Jackson Atlanta International	Atlanta	L	2,458,665,543	2,262,892,910	8.65%
15	HNL	Honolulu International	Honolulu	L	2,264,820,700	2,189,120,700	3.46%
16	PHL	Philadelphia International	Philadelphia	L	1,901,255,804	1,927,756,545	-1.37%
17	IAH	George Bush Intercontinental/Houston	Houston	L	1,746,475,356	1,734,461,801	0.69%
18	SEA	Seattle-Tacoma International	Seattle	L	1,570,011,793	1,574,603,394	-0.29%
19	PHX	Phoenix Sky Harbor International	Phoenix	L	1,515,738,856	1,436,921,968	5.49%
20	DEN	Denver International	Denver	L	1,363,477,626	1,314,752,910	3.71%
21	SFO	San Francisco International	San Francisco International Airport	L	1,280,669,776	1,245,416,930	2.83%
22	PDX	Portland International	Portland	L	1,169,146,438	1,126,448,683	3.79%
23	SLC	Salt Lake City International	Salt Lake City	L	1,035,206,088	962,293,488	7.58%
24	SJU	Luis Munoz Marin International	San Juan	M	1,008,603,300	850,270,758	18.62%
25	MSP	Minneapolis-St Paul International/Wold-Chamberlain	Minneapolis	L	985,229,001	972,664,080	1.29%

⁸ FAA Definition of Cargo Airport: Cargo Service Airports are airports that, in addition to any other air transportation services that may be available, are served by aircraft providing air transportation of only cargo with a total annual landed weight of more than 100 million pounds. "Landed weight" means the weight of aircraft transporting only cargo in intrastate, interstate, and foreign air transportation. An airport may be both a commercial service and a cargo service airport. <https://www.faa.gov/airports>



Plaquemines Land Use and Transportation Sub-Area Analysis

Rank	Locid	Airport Name	City	Hub	2015 Landed Weight (lbs.)	2014 Landed Weight (lbs.)	% Change
26	LCK	Rickenbacker International	Columbus	N	920,417,207	734,846,781	25.25%
27	BOS	General Edward Lawrence Logan International	Boston	L	893,960,700	910,283,225	-1.79%
28	MCO	Orlando International	Orlando	L	874,183,950	756,120,798	15.61%
29	BFI	Boeing Field/King County International	Seattle	N	833,475,382	815,258,980	2.23%
30	BDL	Bradley International	Windsor Locks	M	797,334,070	783,504,420	1.77%
31	RFD	Chicago/Rockford International	Rockford	N	796,201,190	788,773,800	0.94%
32	AFW	Fort Worth Alliance	Fort Worth	-	775,382,804	667,945,474	16.08%
33	SAT	San Antonio International	San Antonio	M	775,121,718	746,704,930	3.81%
34	BQN	Rafael Hernandez	Aguadilla	N	713,335,570	660,524,330	8.00%
35	DTW	Detroit Metropolitan Wayne County	Detroit	L	685,952,990	674,728,030	1.66%
36	SAN	San Diego International	San Diego	L	611,257,000	586,689,250	4.19%
37	ABQ	Albuquerque International Sunport	Albuquerque	M	579,138,962	569,465,958	1.70%
38	MKE	General Mitchell International	Milwaukee	M	552,959,277	510,090,425	8.40%
39	GSO	Piedmont Triad International	Greensboro	S	548,015,962	535,652,851	2.31%
40	BWI	Baltimore/Washington International Thurgood Marshall	Glen Burnie	L	520,180,931	487,553,717	6.69%
41	ELP	El Paso International	El Paso	S	518,866,006	497,118,706	4.37%
42	RNO	Reno/Tahoe International	Reno	S	511,550,100	467,324,320	9.46%
43	MCI	Kansas City International	Kansas City	M	503,007,188	497,633,875	1.08%
44	AUS	Austin-Bergstrom International	Austin	M	498,446,900	438,339,730	13.71%
45	FLL	Fort Lauderdale/Hollywood International	Fort Lauderdale	L	483,535,440	508,118,870	-4.84%
46	IAD	Washington Dulles International	Dulles	L	481,928,116	479,925,622	0.42%
47	MHT	Manchester	Manchester	S	464,074,218	468,002,490	-0.84%
48	GEG	Spokane International	Spokane	S	462,528,273	402,626,480	14.88%
49	DSM	Des Moines International	Des Moines	S	461,908,212	451,745,058	2.25%
50	RDU	Raleigh-Durham International	Raleigh	M	446,121,017	439,980,600	1.40%
51	PIT	Pittsburgh International	Pittsburgh	M	432,456,881	405,850,757	6.56%
52	LRD	Laredo International	Laredo	N	428,871,493	441,535,408	-2.87%
53	TPA	Tampa International	Tampa	L	423,882,478	395,335,682	7.22%
54	RIC	Richmond International	Highland Springs	S	414,615,016	408,252,520	1.56%
55	HSV	Huntsville International-Carl T Jones Field	Huntsville	S	408,275,297	411,062,041	-0.68%
56	JAX	Jacksonville International	Jacksonville	M	401,128,446	395,653,090	1.38%
57	CLE	Cleveland-Hopkins International	Cleveland	M	393,392,936	370,335,804	6.23%



Plaquemines Land Use and Transportation Sub-Area Analysis

Rank	Locid	Airport Name	City	Hub	2015 Landed Weight (lbs.)	2014 Landed Weight (lbs.)	% Change
58	CAE	Columbia Metropolitan	Columbia	S	388,993,146	394,282,025	-1.34%
59	MHR	Sacramento Mather	Sacramento	-	381,297,200	361,191,250	5.57%
60	CLT	Charlotte/Douglas International	Charlotte	L	378,541,098	360,077,450	5.13%
61	FSD	Joe Foss Field	Sioux Falls	S	377,360,749	351,194,964	7.45%
62	OMA	Eppley Airfield	Omaha	M	365,487,434	389,625,264	-6.20%
63	BOI	Boise Air Terminal/Gowen Field	Boise	S	356,462,520	343,847,570	3.67%
64	LBB	Lubbock Preston Smith International	Lubbock	S	355,210,987	334,883,620	6.07%
65	LAS	McCarran International	Las Vegas	L	348,984,610	392,745,700	-11.14%
66	SYR	Syracuse Hancock International	Syracuse	S	330,441,704	326,187,092	1.30%
67	STL	Lambert-St Louis International	St. Louis	M	326,316,652	381,204,028	-14.40%
68	MDT	Harrisburg International	Harrisburg	S	323,553,252	273,774,216	18.18%
69	BIL	Billings Logan International	Billings	S	321,407,810	-	N/A
70	TUL	Tulsa International	Tulsa	S	314,123,247	311,962,782	0.69%
71	BNA	Nashville International	Nashville	M	313,285,771	298,160,483	5.07%
72	MSY	Louis Armstrong New Orleans International	Metairie	M	310,548,264	296,971,410	4.57%
73	BUF	Buffalo Niagara International	Buffalo	M	299,562,419	294,675,727	1.66%
74	SMF	Sacramento International	Sacramento	M	285,329,550	287,806,700	-0.86%
75	CID	The Eastern Iowa	Cedar Rapids	S	282,204,502	280,038,467	0.77%
76	TYS	McGhee Tyson	Alcoa	S	272,041,896	284,412,678	-4.35%
77	OGG	Kahului	Kahului	M	265,611,900	249,422,700	6.49%
78	PAE	Snohomish County (Paine Field)	Everett	-	260,828,000	264,430,000	-1.36%
79	ROC	Greater Rochester International	Rochester	S	252,249,876	270,745,982	-6.83%
80	SJC	Norman Y Mineta San Jose International	San Jose	M	244,737,142	244,687,656	0.02%
81	SHV	Shreveport Regional	Shreveport	N	243,664,403	224,776,958	8.40%
82	HRL	Valley International	Harlingen	N	241,223,650	246,377,050	-2.09%
83	GRR	Gerald R Ford International	Grand Rapids	S	232,230,640	238,096,695	-2.46%
84	GFK	Grand Forks International	Grand Forks	N	230,035,259	192,368,533	19.58%
85	KOA	Kona International at Keahole	Kailua Kona	S	222,408,400	207,349,100	7.26%
86	GSP	Greenville Spartanburg International	Greer	S	222,392,195	240,117,397	-7.38%
87	GTF	Great Falls International	Great Falls	N	219,688,800	182,509,524	20.37%
88	OKC	Will Rogers World	Oklahoma City	S	215,269,413	219,221,158	-1.80%
89	ICT	Wichita Dwight D Eisenhower National	Wichita	S	211,148,324	211,328,367	-0.09%
90	ORF	Norfolk International	Norfolk	S	199,228,038	197,539,516	0.85%
91	SGF	Springfield-Branson National	Springfield	S	196,625,120	197,790,480	-0.59%



Plaquemines Land Use and Transportation Sub-Area Analysis

Rank	Locid	Airport Name	City	Hub	2015 Landed Weight (lbs.)	2014 Landed Weight (lbs.)	% Change
92	FWA	Fort Wayne International	Fort Wayne	N	193,625,000	210,749,949	-8.13%
93	YIP	Willow Run	Detroit	-	185,931,591	194,188,703	-4.25%
94	BHM	Birmingham-Shuttlesworth International	Birmingham	S	177,166,860	176,272,280	0.51%
95	ABE	Lehigh Valley International	Allentown	N	165,979,400	-	N/A
96	ALB	Albany International	Albany	S	162,823,140	164,482,420	-1.01%
97	ITO	Hilo International	Hilo	S	162,187,100	172,094,600	-5.76%
98	TUS	Tucson International	Tucson	S	159,073,280	154,876,980	2.71%
99	LAN	Capital Region International	Clinton (Township of)	N	156,226,703	129,734,692	20.42%
100	PIE	St Pete-Clearwater International	Clearwater	S	155,321,000	135,988,000	14.22%
101	LIT	Bill and Hillary Clinton National/Adams Field	Little Rock	S	151,139,549	146,588,078	3.10%
102	PIA	General Downing - Peoria International	Peoria	N	147,981,860	206,958,840	-28.50%
103	BFM	Mobile Downtown	Mobile	-	146,626,250	159,755,964	-8.22%
104	SWF	Stewart International	Newburgh	N	145,465,580	142,854,580	1.83%
105	ABY	Southwest Georgia Regional	Albany	N	144,591,000	161,221,000	-10.32%
106	LGB	Long Beach /Daugherty Field/	Long Beach	S	137,384,934	164,090,566	-16.27%
107	FAI	Fairbanks International	Fairbanks	S	133,685,593	119,372,978	11.99%
108	LIH	Lihue	Lihue	S	129,646,700	113,432,400	14.29%
109	ROA	Roanoke-Blacksburg Regional/Woodrum Field	Roanoke	N	128,517,300	128,954,840	-0.34%
110	TOL	Toledo Express	Toledo	N	122,077,000	122,077,000	0.00%
111	RSW	Southwest Florida International	Fort Myers	M	120,935,300	119,577,700	1.14%
112	PVD	Theodore Francis Green State	Warwick	S	111,913,500	109,829,000	1.90%
113	LFT	Lafayette Regional/Paul Fournet Field	Lafayette	N	107,562,000	107,586,000	-0.02%
114	COS	City of Colorado Springs Municipal	Colorado Springs	S	107,320,000	108,568,776	-1.15%
115	FAT	Fresno Yosemite International	Fresno	S	105,019,500	104,627,600	0.37%
116	SBN	South Bend International	South Bend	N	100,331,775	98,951,022	1.40%
117	FNT	Bishop International	Flint	S	98,561,050	83,575,526	17.93%
118	GUM	Guam International	Tamuning	S	76,717,500	87,446,300	-12.27%
119	JAN	Jackson-Medgar Wiley Evers International	Jackson	S	69,537,600	76,147,866	-8.68%
120	CHA	Lovell Field	Chattanooga	N	56,150,740	60,371,307	-6.99%
121	DAY	James M Cox Dayton International	Dayton	S	51,282,000	52,086,800	-1.55%
122	BGR	Bangor International	Bangor	N	27,805,952	22,768,983	22.12%
123	TVF	Thief River Falls Regional	Thief River Falls	-	24,701,617	-	N/A



Rank	Locid	Airport Name	City	Hub	2015 Landed Weight (lbs.)	2014 Landed Weight (lbs.)	% Change
124	BRO	Brownsville/South Padre Island International	Brownsville	N	18,194,698	17,886,176	1.72%
125	RIV	March ARB	Riverside	-	7,140,000	9,220,000	-22.56%
126	IAG	Niagara Falls International	Niagara Falls	N	4,998,902	1,819,238	174.78%
127	IWD	Gogebic-Iron County	Ironwood	-	4,960,500	4,469,000	11.00%
128	GUP	Gallup Municipal	Gallup	-	4,202,425	4,734,240	-11.23%
129	PSM	Portsmouth International at Pease	Portsmouth	N	4,150,623	19,313,869	-78.51%
130	CIC	Chico Municipal	Chico	N	3,237,500	6,476,200	-50.01%
131	TCC	Tucumcari Municipal	Tucumcari	-	1,439,700	1,419,050	1.46%
132	VNY	Van Nuys	Van Nuys	-	66,000	422,000	-84.36%
9999	CHS	Charleston AFB/International	Charleston	S	-	331,683,000	-100.00%
9999	HKS	Hawkins Field	Jackson	-	-	2,233,501	-100.00%

Source: CY 2015 ACAIS, Federal Aviation Administration

Note: Passenger (enplanement) and cargo data is extracted from the Air Carrier Activity Information System (ACAIS), an FAA database that contains revenue passenger boarding and all-cargo data.

The U.S. Department of Transportation (DOT) is the main source of enplanement statistics. U.S. scheduled and nonscheduled certificated air carriers, commuter air carriers, and small certificated air carriers submit data to DOT on Form 41 Schedule T-100, U.S. Air Carrier Traffic and Capacity Data by Nonstop Segment and On-Flight Market. Foreign flag air carriers submit data to DOT on Form 41 Schedule T-100(f), Foreign Air Carrier Traffic Data by Nonstop Segment and On-Flight Market. In addition, the FAA conducts an annual survey of air taxi/commercial operators who report their nonscheduled activity on FAA Form 1800-31, Airport Activity Survey.



3.1.3 Region

While Bureau of Transportation Statistics T-100 Market Data on Air Cargo Revenue Tons Enplaned (see Table 15) reveal trends in air cargo weights and give an indicator on frequency of flights and transport of goods, the U.S. Census Bureau’s Economic Indicators Division data detail the weight of cargo transported by air between the United States and foreign countries⁹.

3.1.3.1 Foreign Exports

Since 2012, the weight of air cargo exported from the United States by air has declined at an average annual rate (CAGR) of 1.6%. During this same period, the cargo weight exported by the New Orleans District¹⁰ has remained flat, while the Mobile¹¹ and Houston¹² Districts have experienced declines. Healthy growth in air commerce exports has occurred in the Miami District¹³, and strong growth has been shown in Lake Charles, although at very low volume. South America has shown significant declines in air commerce exports (-8.3% CAGR), while Central America and the Caribbean have posted growth of 3% CAGR. These trends are demonstrated in Table 17, Figure 15, Figure 16, Figure 17, Figure 18, Figure 19, Figure 20, and Figure 21.

⁹ “The official U.S. import and export statistics reflect both government and nongovernment shipments of merchandise between foreign countries and the U.S. Customs Territory (the 50 States, District of Columbia, and Puerto Rico), U.S. Foreign Trade Zones, and the U.S. Virgin Islands, without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise between the United States and foreign countries.

The statistics used to compile the merchandise trade balance exclude the following types of transactions:

- United States trade with U.S. possessions, trade between U.S. possessions, and trade between U.S. possessions and foreign countries (except Puerto Rico and the U.S. Virgin Islands).
- Merchandise shipped in transit through the United States from one foreign country to another.
- Shipments to the U.S. Armed Forces, including post exchanges, for their own use, as well as U.S. merchandise returned by the U.S. Armed Forces for their own use.
- Monetary gold and silver.
- Issued monetary coins (in current circulation) of all component metals.
- Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.
- Shipments of furniture, equipment and supplies to U.S. government agencies as well as such merchandise when returned to the United States.
- Imports of articles repaired under warranty.

Some other transactions are not considered to be of statistical importance, such as shipments of personal and household effects of travelers and certain temporary exports and imports.”

<http://www.census.gov/foreign-trade/guide/sec2.html#source>

¹⁰ New Orleans District includes: New Orleans, LA; Morgan City, LA; Little Rock, AR; Baton Rouge, LA; Port Sulphur, LA; Memphis, TN; Nashville, TN; Chattanooga, TN; Destrehan, LA; Gramercy, LA; Greenville, MS; Avondale, LA; St. Rose, LA; Good Hope, LA; Vicksburg, MS; Knoxville, TN; Lake Charles, LA; Shreveport/Bossier City, LA; Tri-Cities Airport, TN; Arkansas Aeroplex, Blythville, AR; FedEx Memphis, TN

¹¹ Mobile District includes: Mobile, AL; Gulfport, MS; Pascagoula, MS; Birmingham, AL; Huntsville, AL

¹² Houston-Galveston District includes: Houston, TX; Texas City, TX; Houston Intercontinental Airport, TX; Galveston, TX; Freeport, TX; Corpus Christi, TX; Port Lavaca, TX; Sugar Land Regional Airport, Sugar Land, TX

¹³ Miami District includes: Miami, FL; Key West, FL; Port Everglades, FL; West Palm Beach, FL; Fort Pierce, FL; Miami International Airport; Ft. Lauderdale-Hollywood International Airport; International Courier Ass.; MIA/CFS EXP CONSIG FACIL; UPS Miami International Airport, FL; UPS Courier Hub, Miami, FL; DHL Worldwide Express, Miami, FL; FedEx Courier Hub, Miami, FL; IBC Courier Hub, FL



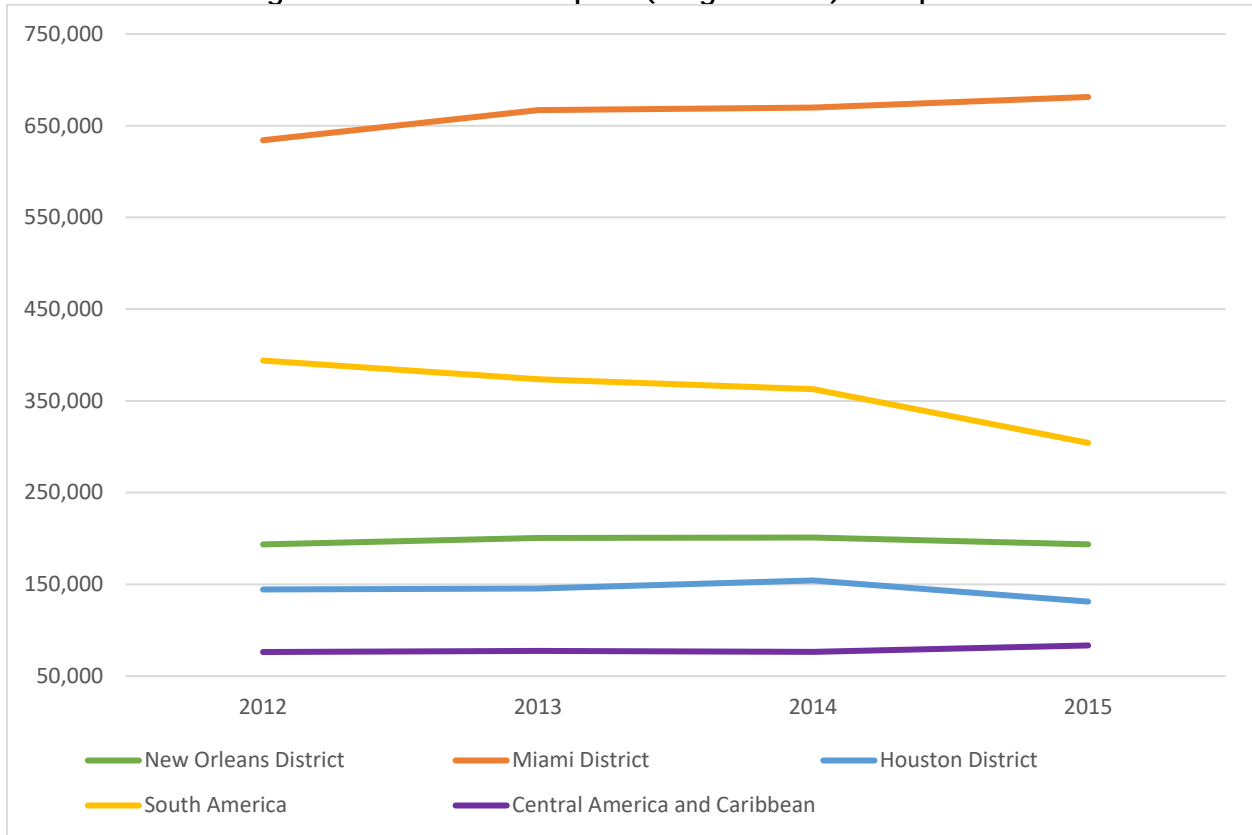
Table 17: Air Commerce by Weight (Converted into Tons): Historical Exports

	2012	2013	2014	2015	CAGR (2012-2015)
United States	3,757,120	3,609,122	3,647,249	3,574,433	-1.6%
New Orleans District	193,596	200,682	201,084	193,612	0.0%
New Orleans MSA	179,220	185,441	188,336	182,904	0.7%
Lake Charles	1	0	5	4	61.4%
Miami District	634,189	666,860	669,766	681,325	2.4%
Mobile District	22,119	22,658	22,542	18,823	-5.2%
Houston District	144,548	145,484	154,292	131,251	-3.2%
South America	393,979	373,611	362,694	304,256	-8.3%
Central America and Caribbean	76,285	77,315	76,557	83,439	3.0%

Source: U. S. Census Bureau, Economic Indicators Division; Division USA Trade Online, U.S. Import and Export Merchandise trade statistics; TMG Consulting conversions and analysis

Figure 15 shows the Historical Exports for the New Orleans District, Miami District, Houston District, South America, and Central America and the Caribbean. In this chart, the growth and declines in cargo are not easily distinguished, however the placement of these exporters within the market is. The Miami District dwarfs the other exporters in terms of weight exported by air.

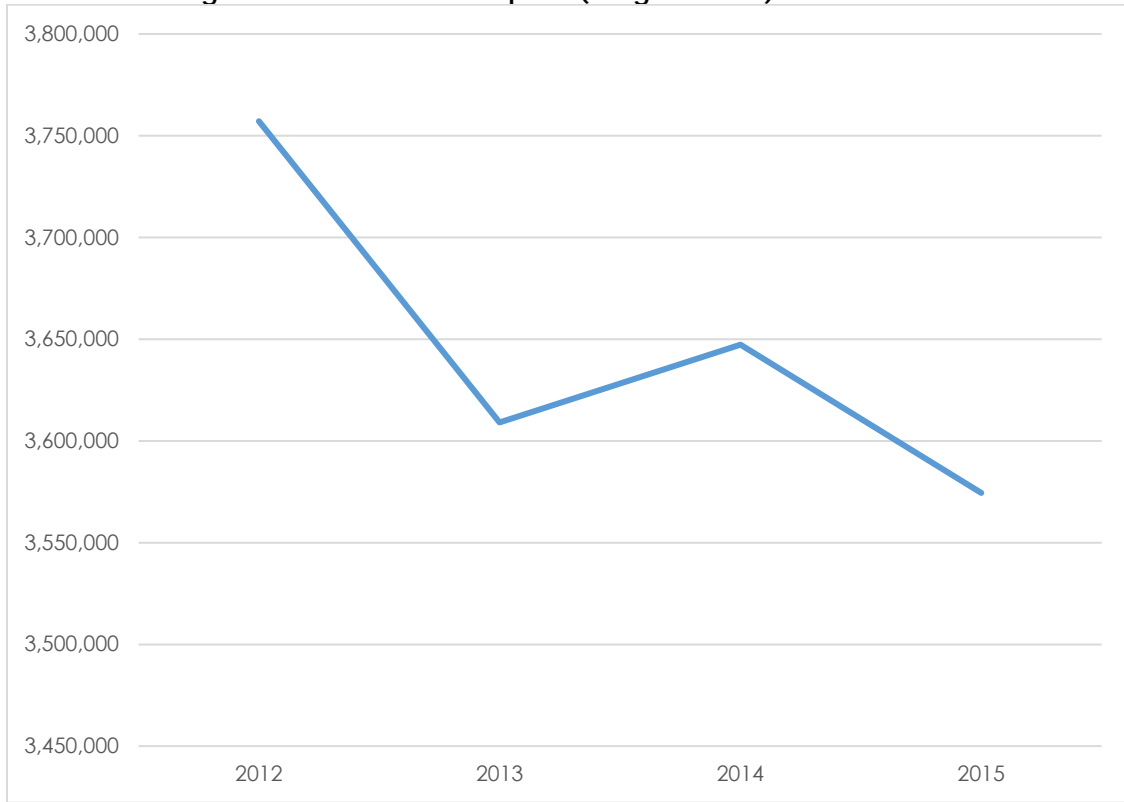
Figure 15: Historical Air Exports (weight in tons): Comparison



Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

The growth and declines in the weight of air exports of the United States and select locations are shown in the following charts.

Figure 16: Historical Air Exports (weight in tons): United States



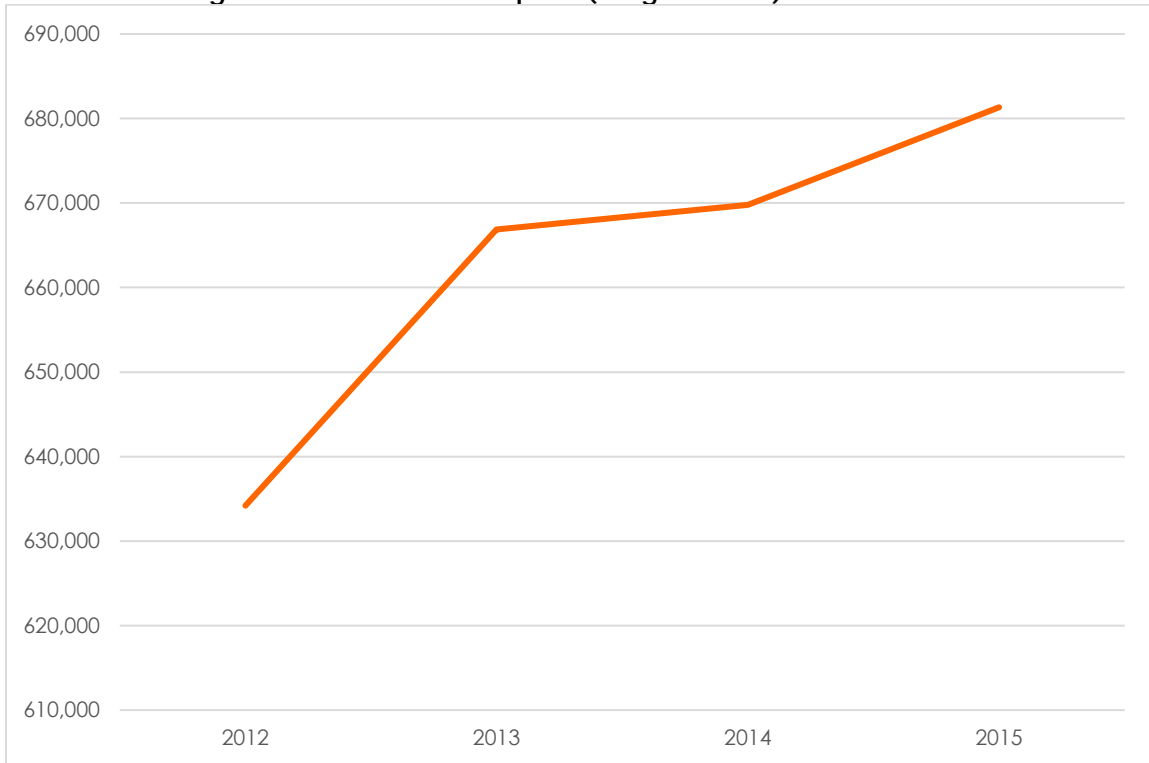
Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

Figure 17: Historical Air Exports (weight in tons): New Orleans District



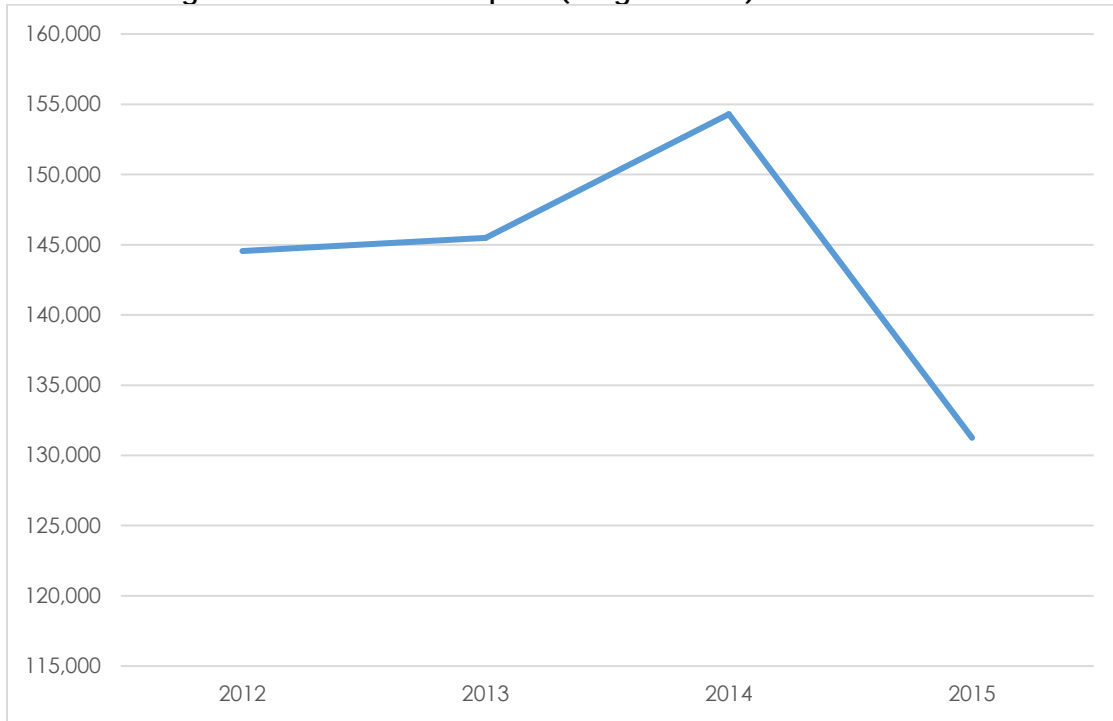
Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

Figure 18: Historical Air Exports (weight in tons): Miami District



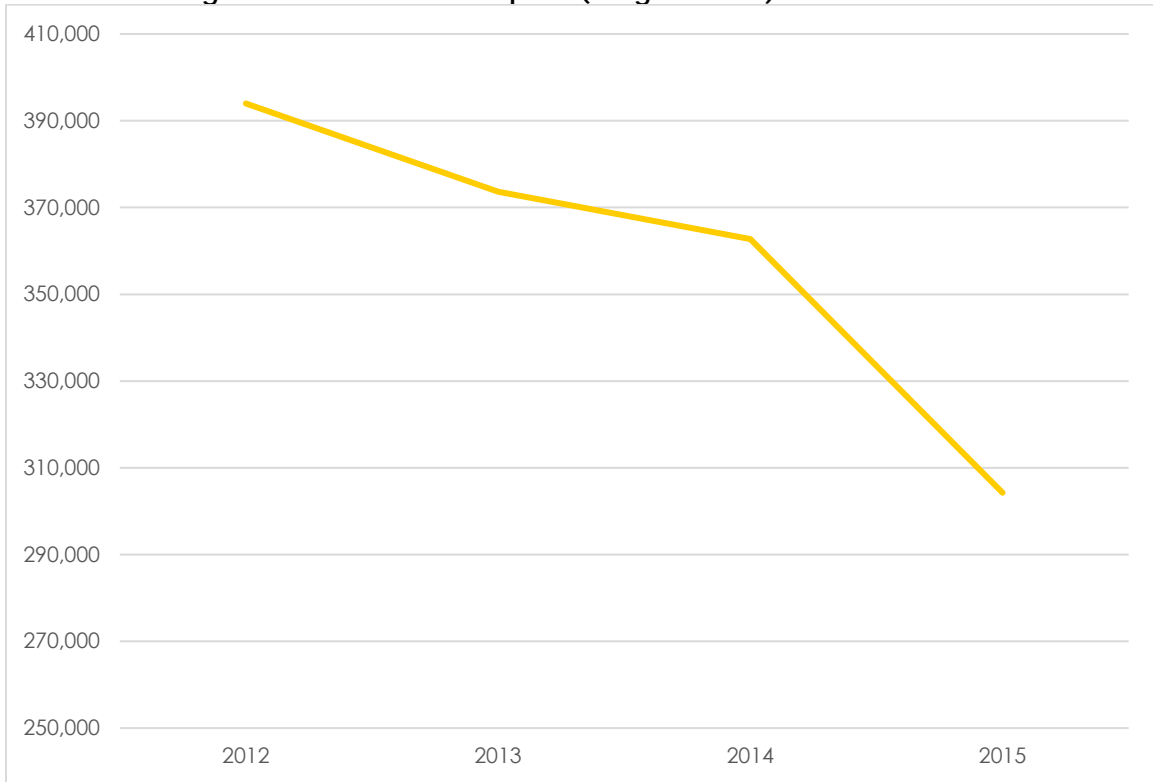
Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

Figure 19: Historical Air Exports (weight in tons): Houston District



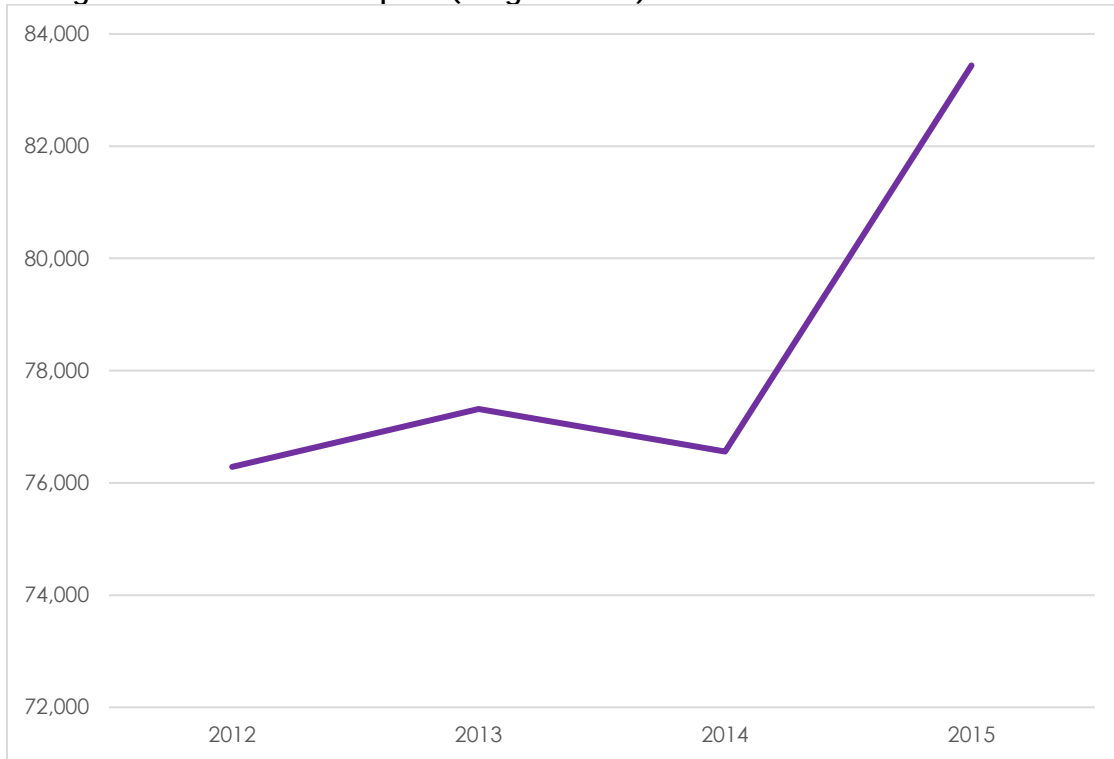
Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

Figure 20: Historical Air Exports (weight in tons): South America



Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

Figure 21: Historical Air Exports (weight in tons): Central America and Caribbean



Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

3.1.3.2 Foreign Imports

In contrast to the trend in U.S. exports, the weight of air cargo imported into the United States has increased at an average annual rate (CAGR) of 5.0% since 2012. During this same period, the cargo weight imported by the New Orleans District has declined slightly, at -1.1% CAGR. The Mobile District has experienced the greatest decline of the locations studied, at -9.4% CAGR. Both the Houston and Miami Districts have experienced growth during this period, and Lake Charles has entered this market. South America has shown a slight increase air commerce imports, while Central America and the Caribbean have posted growth of 6.5% CAGR. These trends are demonstrated in *Table 18*, and the *Figures* to follow.



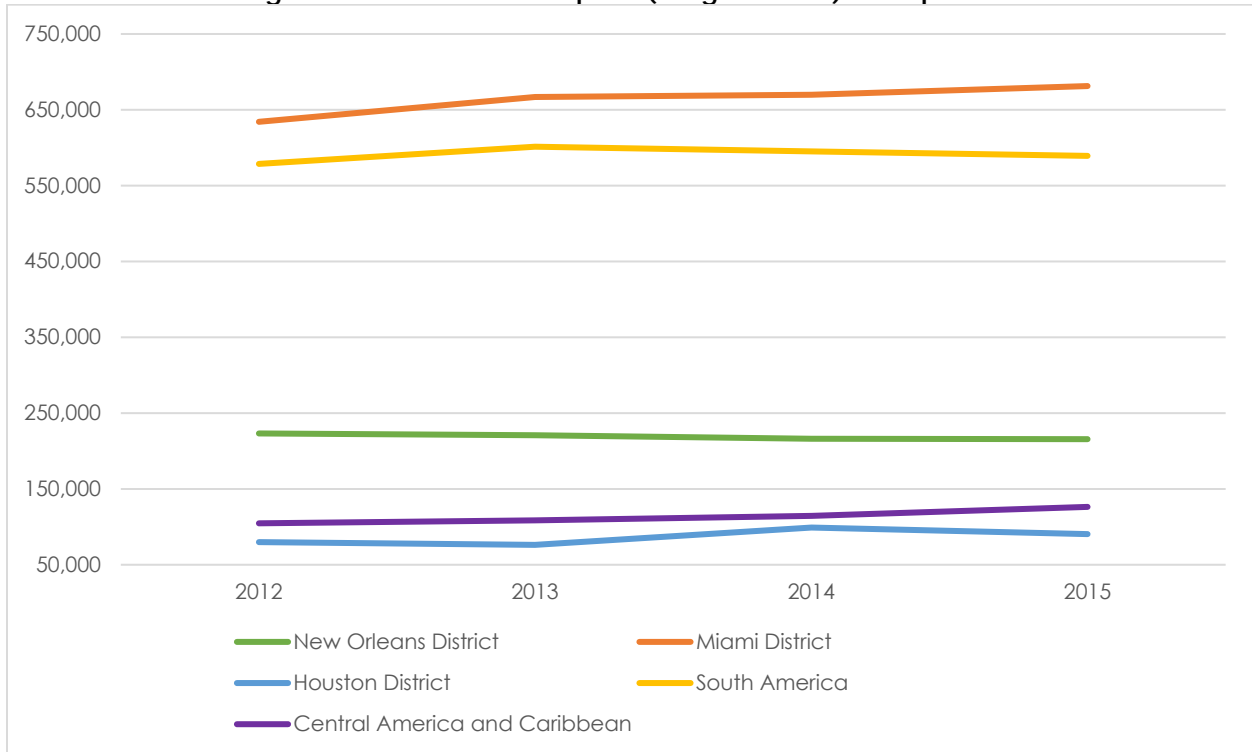
Table 18: Air Commerce by Weight (Converted into Tons): Historical Imports

	2012	2013	2014	2015	CAGR (2012-2015)
United States	4,131,034	4,136,271	4,510,859	4,784,569	5.0%
New Orleans District	223,166	220,704	216,115	215,620	-1.1%
New Orleans MSA	212,629	210,648	208,406	206,494	-1.0%
Lake Charles	0	0	0	154	
Miami District	634,189	666,860	669,766	681,325	2.4%
Mobile District	29,662	26,048	28,560	22,055	-9.4%
Houston District	79,920	76,224	99,069	90,482	4.2%
South America	578,668	601,342	595,120	589,120	0.6%
Central America and Caribbean	104,649	108,382	114,420	126,315	6.5%

Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

Figure 22 shows the Historical Imports by weight for the New Orleans District, Miami District, Houston District, South America, and Central America and the Caribbean. In this chart, like Figure 15 showing exports, the growth and declines in cargo imports are not notable. However, the placement of these importers within the market is noteworthy. The Miami District and South America are large importers by air, while the New Orleans and Houston Districts, as well as Central America and the Caribbean are smaller importers by air.

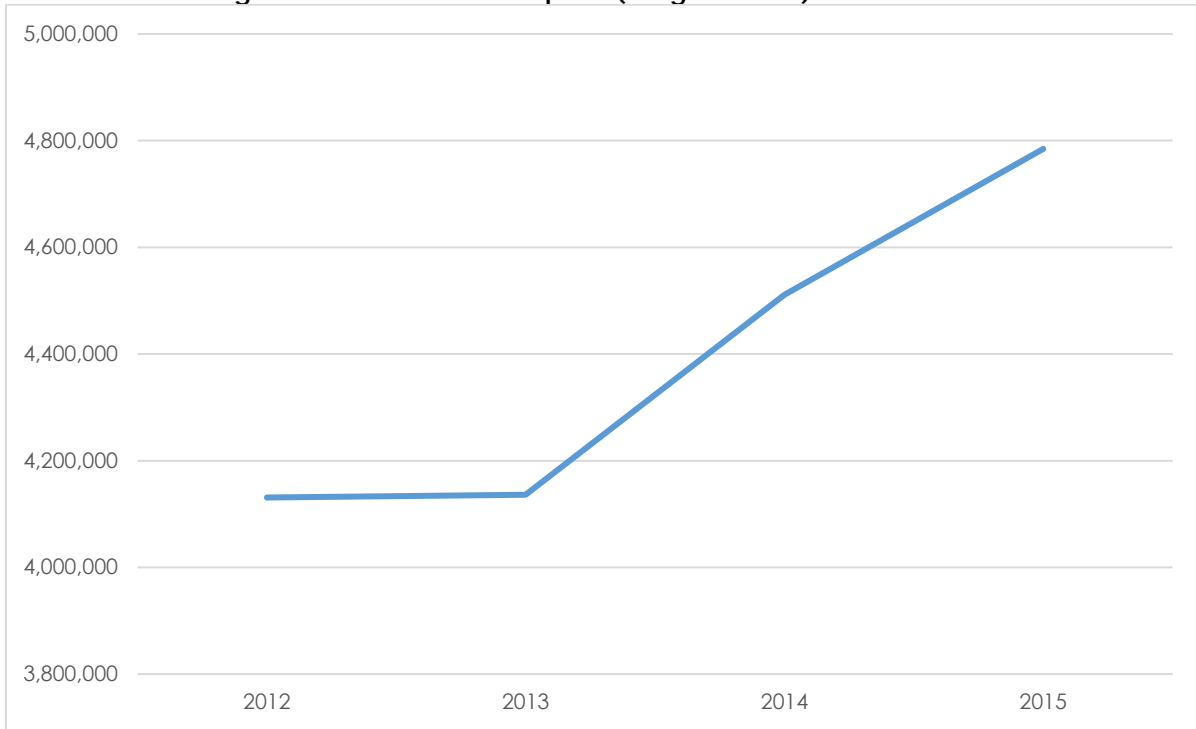
Figure 22: Historical Air Imports (weight in tons): Comparison



Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

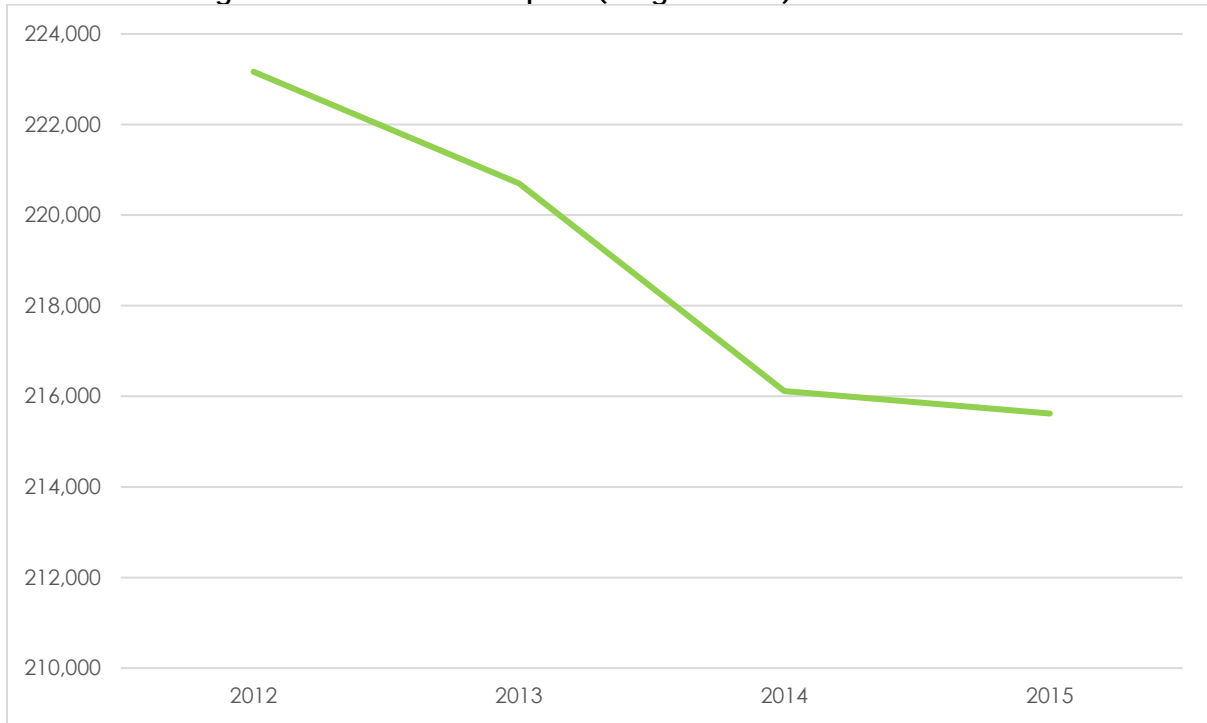
The growth and declines in the weight of air imports of the United States and select locations are shown in Figure 23, Figure 24, Figure 25, and Figure 26.

Figure 23: Historical Air Imports (weight in tons): United States



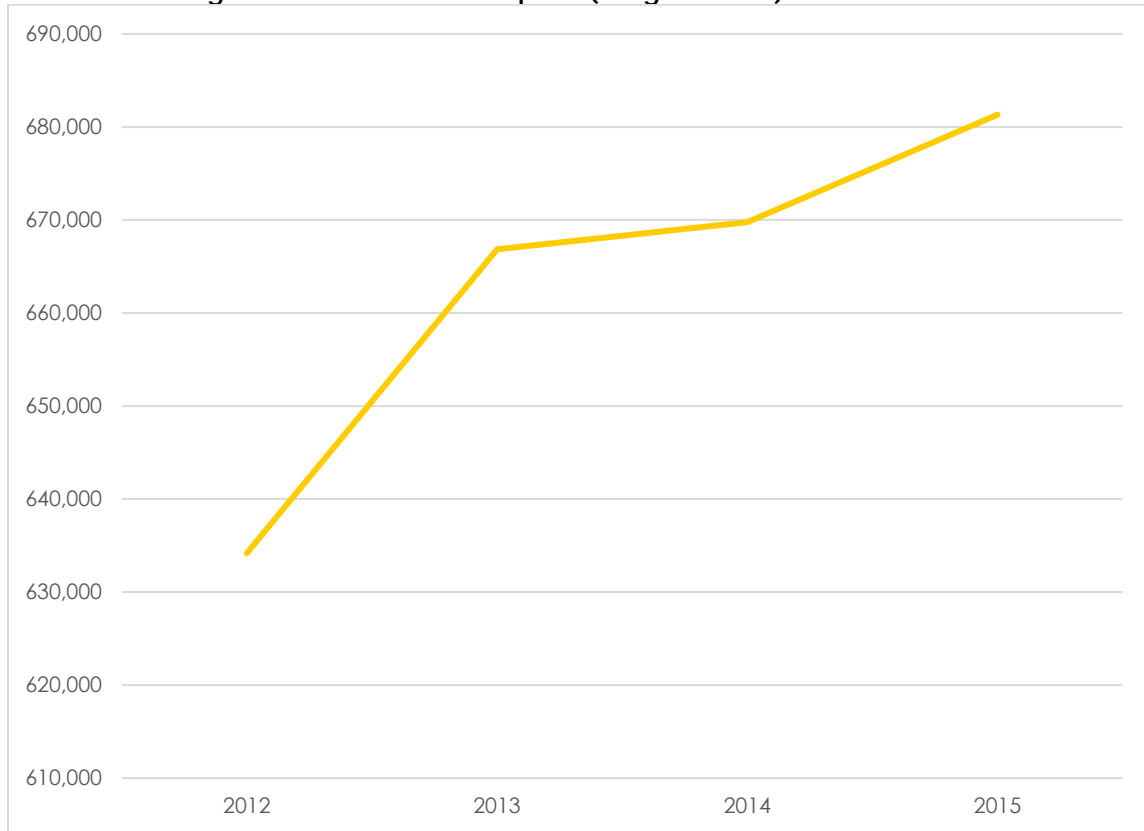
Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

Figure 24: Historical Air Imports (weight in tons): New Orleans District



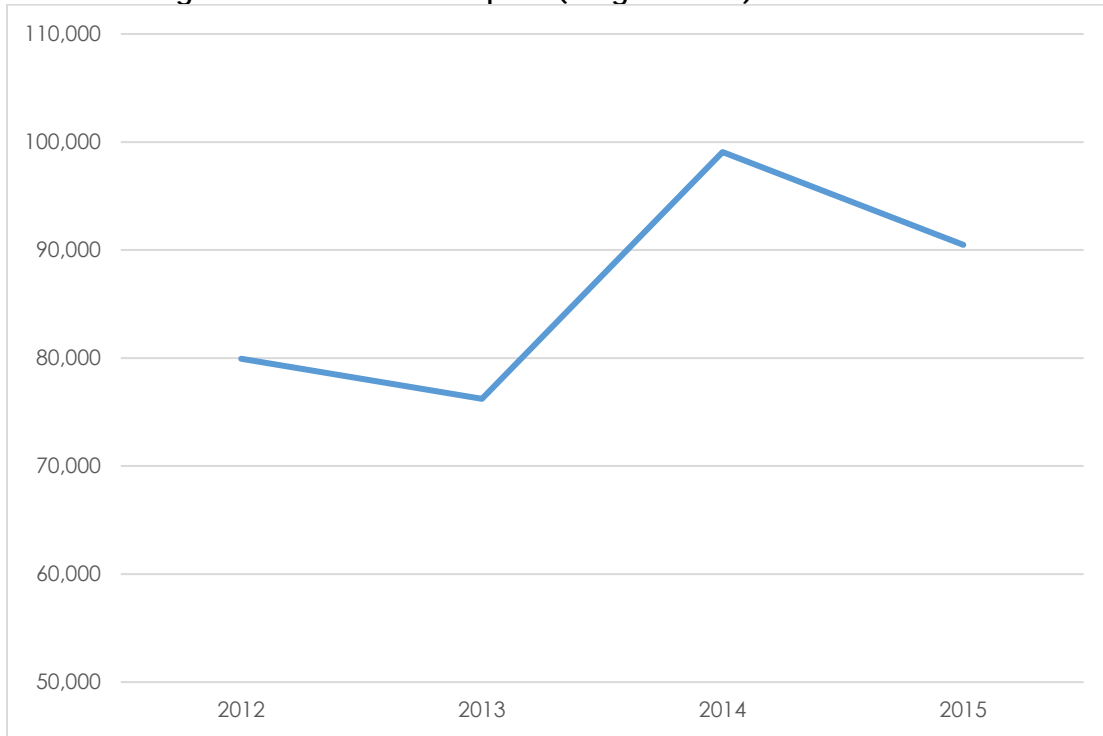
Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

Figure 25: Historical Air Imports (weight in tons): Miami District



Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

Figure 26: Historical Air Imports (weight in tons): Houston District



Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions and analysis

3.1.3.3 *Total Air Commerce*

Combined, the total air commerce by weight in the United States was nearly 8.36 million tons in 2015. **Table 19** displays the total imports and exports by air for the selected locations. It must be noted that these data are not comparable to other data sources detailed in this study, but remain useful in the analysis of patterns and trends in air commerce.

Table 19: Total Air Commerce by Weight: Imports and Exports

	2012	2013	2014	2015	CAGR (2012- 2015)
United States	7,888,154	7,745,393	8,158,108	8,359,003	2.0%
New Orleans District	416,762	421,386	417,199	409,232	-0.6%
New Orleans MSA	391,849	396,089	396,741	389,398	-0.2%
Lake Charles	1	0	5	157	458.3%
Miami District	1,268,378	1,333,720	1,339,532	1,362,650	2.4%
Mobile District	51,781	48,706	51,102	40,879	-7.6%
Houston District	224,468	221,708	253,361	221,733	-0.4%
South America	972,647	974,953	957,815	893,377	-2.8%
Central America and Caribbean	180,934	185,697	190,977	209,754	5.1%

Source: U. S. Census Bureau, Economic Indicators Division; TMG Consulting conversions

3.2 Military Bases

Over the course of the past 100 years there have been various private and public partnerships or local and federal governmental partnerships, which have sought to develop mutually beneficial economic operations. This section will review two cases of airfields, operated by the Air Force, that are being utilized for private operations. The two cases described in the following section were chosen as they represent the few instances where private organizations utilize air field infrastructure operated by the armed forces.

3.2.1 Case Studies

3.2.1.1 15th Wing (PACAF), Hickam Field/ Honolulu International Airport, Honolulu, Hawaii (HNL)

Hickam Field is the United States Air Force Installation operating in conjunction with the Honolulu International Airport (HNL), previously known as John Rodgers Airport. The installation, which has been operated by both the United States Navy as the Naval Air Station Honolulu between 1937 and 1947, and the United States Airforce as the Hickam Field Airforce Base, from 1947 to the present. Since 1937, the military base and passenger airport have shared the use of runways for passenger transportation, general aviation, and cargo shipping. The four-runway airport has acted as the premier international transfer point for air freight activity between the United States and Pacific Rim counties. In 2015, 472,500 tons of goods landed at the airport, 11 times the tonnage landed at Louis Armstrong New Orleans International Airport (LANOI) during the same year.¹⁴

Cargo facilities are located at five different sites in the airport complex and include nine cargo terminal buildings operated by five providers (Federal Express, Hawaiian Airlines, Kallita/Pacific Air Cargo, United Airlines, and United Parcel Service). The HNL facilities include more than 450,000 sq ft of warehouse

¹⁴ "Cargo Facilities." Honolulu International Airport. State of Hawaii, 2016. Web. Dec. 2016. <<http://hawaii.gov/hnl/airport-information/cargo-facilities>>.



space and over one million square feet of cargo ramp area. Both the Air Force activities, as well as the public and private organizations, provide a significant level of employment for the island of O’ahu.¹⁵

The Hickam Field/HNL operations are guided by a board established to provide unified guidance for the development and administration of procedures agreeable to all parties for the overall aerial and airfield ground operation and maintenance of the facilities. The board includes equal membership and governance from the Department of the Air Force, Annex lead Naval personnel from the Joint Base operations of Pearl Harbor Naval Station and Hickam Field, and the State of Hawaii Department of Transportation.¹⁶

Due to the historical interwoven nature of the airport and the Air Force base there are various aspects of the partnership that are unique to these facilities. The most recent Memorandum of Understanding (2013) between HNL and Hickam Field reiterates the cooperative nature, as well as the separation of activities conducted by each of the agencies, as well as the associated responsibilities. While each of the departments share the responsibility for the maintenance of the airport runways, each of the departments is responsible for the maintenance of specific taxiways and associated lighting and markers. Whereas, the Air Force is required to provide increased security mechanisms, including Explosive Ordnance Detectors and Explosive Detector Dogs.¹⁷

3.2.1.2 South Field, Naval Air Station Whiting Field, Milton, Florida (NASWF)

South Field, Naval Air Station Whiting Field, Milton, Florida (NASWF) is a 4,000-acre main complex Naval training facility. The facility is a major employer within Santa Rosa County with approximately 2,700 military and civilian personnel working on base. Additionally, the complex consists of 14 Navy Outlying Landing Fields (NOLFs) covering 7,600 acres. There are currently two airfields located within NAS Whiting with similar configurations. The two fields are commonly referred to as Whiting Field North (NSE) and Whiting Field South (NDZ). In 2003, approximately 152,000 flight operations utilized the two available fields. The air station's effect on retail sales, real estate, and payroll has contributed to the economic stability of the entire county.¹⁸

In 2009, Santa Rosa Count submitted a limited-access use agreement to the US Navy, in efforts to utilize runways and taxiways (Flying Facilities) within the limits of the NASWF for Civil Aircraft operations (I.e. Manufacture, Maintenance, Repair, and Overhaul). The Limited-Access Use of the flying facilities did not include commercial passenger and/or cargo carriers. As part of the agreement, the Navy was not committed to providing any additional real property or other facilities required for exclusive use by the County. The County already had access to real property and other facilities, which were being used to support previous aviation operations conducted by the County. Contingent on the Limited-Access Use Agreement, the County is not permitted to pursue or approve any extension to the runway at Peter Prince Airport, a small single runway, public-use airport located 4 miles east of NASWF.¹⁹

¹⁵ Hickam Field/ HNL. *Memorandum of Understanding*. 2013. FB5260-13126-900

¹⁶ Ibid

¹⁷ Hickam Field/ HNL. *Memorandum of Understanding*. 2013. FB5260-13126-900

¹⁸ United States Navy and Santa Rosa County, Florida. *Limited Access Use Agreement between the United States Navy and Santa Rosa County Florida*. 2009. N69450-09-RP-00031.

¹⁹ Ibid



Section 4: Stakeholder Participation

Stakeholder opinions were sought from November 7, 2016 through December 30, 2016 to better understand the feasibility of a potential air cargo facility and industrial campus. Strategic Stakeholders were identified by Bobby Thomas, Executive Director of the Plaquemines Association of Business & Industry.

The following strategic stakeholders participated in the Plaquemines Land Use and Transportation Sub-Area Analysis:

- Daybrook Industries, Inc.
- Whitney Bank
- Southland Rental Tools, Inc.
- N.C. Hero & Son
- Stolthaven
- The Venice Port Complex
- PHI, Inc.
- Plaquemines Processing and Recovery
- Southern Seaplane
- Venture Global LNG
- Phillips 66 Alliance Refinery
- New Orleans Iron Works, L.L.C.

4.1 Summary of Findings

The strategic stakeholders interviewed are engaged in a myriad of businesses. These businesses include production of fish meal and fish oil, banking, oilfield service and equipment rental, real estate development, operating a liquid chemical storage terminal, Venice Port operations, helicopter support for offshore oil exploration and drilling, air medical services waste water treatment, recycling services, private chartered planes, energy manufacturing and logistics, and structural and miscellaneous steel fabrication.

Half of participating strategic stakeholders have additional locations, while half are located only within Plaquemines Parish. Almost half of strategic stakeholder representatives reside in Plaquemines Parish (42%), while 58% do not. This is reflective in the demographic data as well, *Section 2.4 Area Employment*, suggesting Plaquemines Parish is a regional employer, pulling workers from not just the Parish but from the region. Over half of participating strategic stakeholder firms (58%) are headquartered in Plaquemines Parish. The remaining 42% of firms are headquartered elsewhere, such as New Orleans, LA, Lafayette, LA, Houston, TX, Washington, D.C., and the country of Holland.

Thirty-three percent of participating strategic stakeholder firms manufacture a product. These firms manufacture fish meal and fish oil, commercial seafood, helicopter parts, petroleum products, and structural and miscellaneous steel. Products manufactured in Plaquemines Parish are then shipped locally, to get parts and people into the Gulf/Off Shore, within the state of Louisiana, as well as throughout the nation and the world.

Trucking is the most utilized method for the movement of goods by participating stakeholders, with 82% of stakeholders reporting use of trucking. Additionally, 45% of stakeholders utilize air shipping, 36% utilize maritime vessels such as barges or ships, 9% utilize trains, and 9% utilize pipelines. It was found that



stakeholders utilize air shipping for convenience and time sensitivity, while trucking is utilized for bulk shipments or the weight of the product. Stakeholders responded that their business will utilize the shipping method that is available and most cost-efficient.

Stakeholders indicated that having closer air access to the Gulf of Mexico, rail access to southern Plaquemines Parish, and the replacement of the draw bridge on Highway 23 would improve their ability to transport goods. Twenty-seven percent of stakeholders indicated that a local Air Cargo Facility would improve their firm's receipt of shipments.

Forty percent of stakeholder firms indicated they would utilize a nearby cargo airport to receive products, while 27% indicated they would utilize a nearby cargo airport to ship products. Reasons for this include the expedited nature of transportation with a cargo airport, a closer shipping point to the Gulf of Mexico, and ease of mobility and accessibility for a location past New Orleans.

Reasons why stakeholder firms indicated they would not utilize a cargo airport to ship products include:

- customers receive all products in bulk;
- no product to ship;
- the weight of product manufactured;
- liquid natural gas is not shipped through the air;
- oil extraction relies on existing pipeline infrastructure
- the nature of the work is with liquids and due to this air is not a feasible option.

Three-fourths (75%) of responding strategic stakeholder firms think an Air Cargo Facility in Plaquemines Parish is preferable, 17% have no opinion, and 8% do not find an Air Cargo Facility in Plaquemines Parish to be preferable. The reason that was given for not finding the proposed development preferable is that it does not affect the stakeholder's business. Stakeholder firms support an Air Cargo Facility in Plaquemines Parish for several reasons, including that it would:

- enhance multi-modal development of the port of Plaquemines;
- generate a greater diversified business economy;
- be a welcome addition to our economic diversification model;
- benefit Plaquemines Parish's economic development;
- foster both direct and indirect job creation;
- provide a necessary part in the overall shipment process to reduce shipment time and cost;
- facilitate the movement of goods while reducing the cost of the movement of goods;
- make the delivery of goods and products easier and quicker;
- give the geographic area West and South of the Mississippi River needed access to air freight;
- generate additional revenue, jobs and growth in the region;
- increase the number of shipping and receiving businesses;
- generate more business opportunities;
- be a huge benefit to assist the development of the river in Plaquemines parish for the facility of the inward and outward movement of cargo;
- better serve the industry in southern Plaquemines Parish.

Concerns about an Air Cargo Facility in Plaquemines Parish include:

- Increased traffic
- Increased noise
- Potential residential encroachment

- The potential hurdle of the landing facility—currently does not allow bigger planes to land at night which could be detrimental to time sensitive shipments.
- No cases of civilian using Naval bases so the process for approval may be arduous
- Geographic limitations
- Lack of infrastructure

Comprehensive Stakeholder Engagement interviews can be found in *Section 8:Appendix*.



Section 5: Implications of Development Scenarios

5.1 No-Build (Scenario 1)

5.1.1 Traffic and Mobility Needs

In Scenario 1, no additional demand would be placed on area roads or other modes of transportation due to the nature of the scenario (No Action Alternative or No-Build Alternative).

5.1.2 Infrastructure and Utility Needs

The No Action Alternative, or No-Build Alternative (Scenario 1) would not result in any modifications to the existing infrastructure and community composition of Plaquemines Parish. As such, the No Build Alternative would not generate additional infrastructure or utility needs.

5.1.3 Land Compatibility and Resulting Regulatory Needs

As the No Action Alternative, or No-Build Alternative (Scenario 1) would not result in any land use changes, existing land compatibility and regulation will be compatible and consistent with the Plaquemines Parish Comprehensive Plan.

5.1.4 Build-out Potential and Likely Timing of Build-out

No build-out would exist in Scenario 1. As such no build-out timing is applicable to the No Action or No-Build Alternative.

5.1.5 Opinion of Probable Costs

There is no cost associated with the No Action or No-Build Alternative (Scenario 1).

5.1.6 Consistency with Adopted Plans

5.1.6.1 *Plaquemines Parish Comprehensive Plan*

The No Action Alternative, or No-Build Alternative (Scenario 1) would not result in any modifications to the existing infrastructure and community composition of Plaquemines Parish. As such, the No Build Alternative is consistent with the Plaquemines Parish Comprehensive Plan²⁰.

5.1.6.2 *Port Master Plan*

The No Action Alternative, or No-Build Alternative (Scenario 1) would not result in any modifications to the existing or future operations at the Plaquemines Port. As such, the No Build Alternative is consistent with the Plaquemines Parish Port Master Plan.²¹

5.2 Cargo Airport Development (Scenario 2)

5.2.1 Cargo Airport Feasibility

The Naval Air Station Joint Reserve Base New Orleans (NAS/JRB) has been proposed as the cooperative airfield for use with a nearby off-base site for development of a potential air cargo facility. Such a

²⁰ Plaquemines Parish, LA. *Plaquemines Parish Comprehensive Master Plan*. 2013

²¹ Plaquemines Parish, LA. *Comprehensive Port Development Master Plan for Plaquemines Parish*. 2010.



facility would utilize existing runways, and seek to maximize the usefulness of the existing air station. This scenario describes the impacts of access “through the fence” and air cargo facilities development and activity to be located on private property adjacent to the base, while utilizing base resources.

5.2.1.1 Methodology

In assessing the potential for an air cargo facility in Plaquemines Parish, TMG employed several methods of analysis, including trend analyses, reviews of institutional forecasts, and a market fair share analysis²². The trend analyses detailed in *Section 3: Comparable Developments and Competition* informed the study team’s understanding of the air cargo market in terms of demand and major operators. Institutional forecasts were also studied and utilized in estimating potential future growth in air cargo for regional operators. Lastly, a market fair share analysis was conducted which incorporated the other methods.

Fair share models are simple models that demonstrate the relative competitiveness of one facility versus another. The inputs for this model are the annual air cargo (in lbs.) for each airport in the region, as well as the number of square feet of cargo facilities and ramp at each. The total cargo in the market is then divided by the total square footage, to yield an average cargo weight per square foot. This average is then compared to the actual cargo per square foot achieved by each airport, resulting in a calculation of each airport’s premium or discount to fair share. A “Fair Share %” which is over 100% represents a facility that is performing better than the regional average, while one that is under 100% indicates a facility that is under-performing or lagging behind the regional average.

5.2.1.2 Competition

The proposed cargo airport in Plaquemines Parish will compete with a large number of airports in the region. The Louis Armstrong New Orleans International Airport is the most proximate major airport to the development site, and therefore is the focus of much of the analyses in this study. Included also are: airports in the south with water port access, such as Mobile Regional Airport, and Houston George Bush Intercontinental Airport; major facilities in the region such as the Dallas/Fort Worth International Airport, Hartsfield-Jackson Atlanta International Airport; and large-scale cargo airports such as Memphis International Airport and Miami International Airport. The major competition envisioned for the proposed air cargo facility, and their relative performance in the air cargo industry are detailed in *Table 20: Cargo Peers: Total Air Cargo in lbs. 2015*.

5.2.1.3 Inputs

To further understand the dynamics of cargo in the region, TMG performed a fair share analysis of the existing market.

²² Preferred methods of analysis of air cargo facilities, as detailed in the *Guidebook for Air Cargo Facility Planning and Development*, include Time-Series Trend Analysis, Regression Analysis, Market Share Analysis, Institutional Forecasts, and Operations Forecasts. *Air Cargo Facility Planning and Development*. Airport Cooperative Research Program. Transportation Research Board. National Academies of Science, Engineering, and Medicine, 2015. <https://www.nap.edu>



The following data (Table 20) were compiled through a survey²³ of potentially competitive airports and analyses of their aerial layouts²⁴. The most proximate airport to Plaquemines Parish is the Louis Armstrong New Orleans International Airport (LANOIA), which handled 88.6 million pounds, or approximately 44,306 tons of air cargo in 2015. At that level of operations, the New Orleans Airport greatly lags behind competing airports in terms of air cargo. If LANOIA were to handle its fair share of cargo in the region (based on square footage of cargo facilities and the total air cargo handled in the region), cargo operations would equal over 505 million pounds, or 252,694 tons. It must be noted, however, that the majority of cargo handled by these airports is “under-belly” cargo transported on commercial airliners, and not dedicated cargo planes. **Table 20** details the reported air cargo for airports in the region, the cargo facilities each offers, and a calculation of the fair share for each.

It should be noted that the peer airports were determined from a larger list of airports with all-cargo operations in the South. Airports with insufficient or no data available were removed from the list.

²³ As noted in the introduction to Section 3: of this study, differing government data sources report sometimes conflicting data regarding cargo operations. The data detailed in the preceding sections of this report were derived from the U.S. Census Bureau and the Bureau of Transportation Statistics. The U.S. Department of Transportation also oversees the publishing of cargo data through the Freight Analysis Framework (FAF). The FAF is a database tool that has aggregated multiple sources of freight data to provide estimates of the tonnage and value of cargo by geographic location in the United States. The data provided includes origin and destination segments for each location and can be broken out by mode or commodity. However, TMG discovered the FAF-reported values for New Orleans air cargo were significantly greater than the values reported by Louis Armstrong New Orleans International Airport (LANOIA) for the same year. TMG investigated this issue by contacting the U.S. Department of Transportation (USDOT) which oversees the FAF tool. The results of this investigation led the TMG team to disregard FAF data in favor of surveys of individual airports and their publicly reported cargo volumes.

²⁴ TMG’s review of aerial images of airports estimates that cargo facilities (warehouses, etc.) and ramp are generally of equal size, representing a 1:1 ratio.



Table 20: Cargo Peers: Total Air Cargo in lbs. 2015

ID	Airport	2015 Total Air Cargo in lbs.	Sqft of Cargo Facilities & Ramp	Total Air Cargo (lbs.)/ Sqft
BFM	Mobile Downtown	40,715,665	304,920	134
FLL	Fort Lauderdale/Hollywood International	171,890,400	2,221,560	77
JAX	Jacksonville International	145,108,001	2,134,440	68
MCO	Orlando International	376,008,000	7,361,640	51
MIA	Miami International	3,859,602,000	14,244,120	271
PBI	Palm Beach International	52,334,000	522,720	100
RSW	Southwest Florida International	32,938,849	784,080	42
TPA	Tampa International	187,356,168	1,350,360	139
ATL	Hartsfield - Jackson Atlanta International	1,252,402,000	5,793,480	216
MSY	Louis Armstrong New Orleans International Airport	88,613,394	2,570,040	34
BNA	Nashville International	83,780,000	2,831,400	30
MEM	Memphis International	9,456,079,553	32,844,240	288
DAL	Dallas Love Field	26,303,000	261,360	101
DFW	Dallas/Fort Worth International	1,475,625,000	9,670,320	153
IAH	George Bush Intercontinental/Houston	859,570,000	9,191,160	94
	TOTAL	18,108,326,030	92,085,840	197

Source: TMG Consulting survey of airports and analysis of aerial layouts; Individual airport websites; TMG Consulting analysis

As clearly shown in the preceding table, cargo operations in the region are dominated by the Memphis International Airport (home to FedEx operations, and earning 146% of its fair share), and the Miami International Airport (earning 138% of fair share). The airport in Memphis handles 288 pounds of cargo for every square foot of cargo facilities, as compared to 271 pounds per square foot in Miami, 216 pounds per square foot in Atlanta, 153 pounds per square foot in Dallas, 134 pounds per square foot in Mobile, and only 34 pounds per square foot in New Orleans. The relatively poor performance of the New Orleans airport in the cargo sector should be cautionary, although not fatal, for those considering a cargo facility in Plaquemines Parish.

By comparison, Hickham Field in Honolulu, Hawaii, received 472,500 tons of goods at facilities comprising just under 1.5 million square feet (see *Section 3.2.1.1*), or approximately 652 pounds per square foot.

5.2.1.4 Growth in the Cargo Market

The preceding analyses of historical data from the Bureau of Transportation Statistics indicate that cargo weights in the United States have grown by approximately 2.4% annually from 2012 to 2015 (*Table 15: Air Cargo Revenue Tons Enplaned* (in thousands)*). Data from the U.S. Census Bureau reveals that exports from the United States have declined at an average annual rate of 1.6% (*Table 17: Air Commerce by Weight (Converted into Tons): Historical Exports*), while imports have grown at a rate of



approximately 5% annually (*Table 18: Air Commerce by Weight (Converted into Tons): Historical Imports*).

Historical growth rates are illustrative of trends to date, and are useful in understanding the air cargo industry as a whole. Separately, the U.S. Department of Transportation, Boeing, and the Airport Council International-North America have projected future growth in air cargo for the United States. **Table 21** details these growth projections, shown as average annual growth rate or CAGR. The Baseline scenario reflects the historical observed CAGR in air commerce weight by the U.S. Census Bureau. Future growth projections range from 4.0% annually, to 5.2% annually through 2020. These growth projections consider not only historical growth patterns, but many other factors that could influence growth in the industry.

Table 21: Cargo Growth Projection Scenarios

Scenario	CAGR
Baseline – Based on Bureau of Transp. Statistics (T-100 Data) observed growth	2.4%
LOW 2020 - Based on USDOT Projections of Air Cargo	4.0%
MED 2020 - Based on Boeing Projections	4.7%
HIGH 2020 - Based on USDOT observed growth and ACI-NA Projections	5.2%

Source: Bureau of Transportation Statistics; USDOT; U.S. Census, Freight Analysis Framework; Boeing World Air Cargo Forecast; Airport Council International-North America (ACI-NA); Bureau of Economic Analysis; TMG Consulting Analysis

5.2.1.5 Regional Cargo Projections without Plaquemines Development

If air cargo were to grow by the historical growth rates reported by rates forecast by the Bureau of Transportation Statistics USDOT (2.4% CAGR) this region that currently handles over 17.9 billion pounds of cargo annually, would grow to more than 20.4 billion pounds annually by 2020 (see **Table 22**). It should be noted that this projection allocates this growth evenly among the regional operators, applying the 2.4% CAGR to each’s 2015 air cargo handled to arrive at a projection of 2020 air cargo.



Table 22: 2020 Projection of Total Air Cargo in lbs: BASELINE GROWTH

ID	Airport	Proj. 2020** Total Air Cargo in lbs.	Sqft of Cargo Facilities & Ramp	Total Air Cargo (lbs.)/ Sqft	Fair Share Air Cargo (lbs.)	Fair Share %
BFM	Mobile Downtown	45,932,444	304,920	151	67,644,016	68%
FLL	Fort Lauderdale/Hollywood International	193,914,213	2,221,560	87	492,834,971	39%
JAX	Jacksonville International	163,700,263	2,134,440	77	473,508,109	35%
MCO	Orlando International	424,184,802	7,361,640	58	1,633,119,806	26%
MIA	Miami International	4,354,121,482	14,244,120	306	3,159,941,873	138%
PBI	Palm Beach International	59,039,402	522,720	113	115,961,170	51%
RSW	Southwest Florida International	37,159,207	784,080	47	173,941,754	21%
TPA	Tampa International	211,361,564	1,350,360	157	299,566,355	71%
ATL	Hartsfield - Jackson Atlanta International	1,412,868,594	5,793,480	244	1,285,236,297	110%
MSY	New Orleans (LANOIA)	99,967,168	2,570,040	39	570,142,418	18%
BNA	Nashville International	94,514,486	2,831,400	33	628,123,002	15%
MEM	Memphis International	10,667,659,286	32,844,240	325	7,286,226,827	146%
DAL	Dallas Love Field	29,673,126	261,360	114	57,980,585	51%
DFW	Dallas/Fort Worth International	1,664,692,502	9,670,320	172	2,145,281,639	78%
IAH	George Bush Intercontinental/Houston	969,704,183	9,191,160	106	2,038,983,900	48%
TOTAL		20,428,492,723	92,085,840	222	20,428,492,723	100%

Source: TMG Consulting survey of airports and analysis of aerial layouts; Individual airport websites; TMG Consulting analysis

*Note: Dataset includes all-cargo peers in same region as LANOIA.

**Note: Projection for 2020 Total Cargo Landed Weight based on historical rate for air cargo growth.



The USDOT has forecast an average annual growth in air cargo of 4.0% through 2020. If this forecast were achieved, this region that currently handles over 17.9 billion pounds of cargo annually, would grow to more than 22.0 billion pounds annually by 2020 (see **Table 23**). As in the BASELINE GROWTH, this projection allocates this growth evenly among the regional operators, applying the 4.0% CAGR to each's 2015 air cargo handled to arrive at a projection of 2020 air cargo.

Table 23: 2020 Projection of Total Air Cargo in lbs: LOW GROWTH

ID	Airport	Proj. 2020** Total Air Cargo in lbs.	Sqft of Cargo Facilities & Ramp	Total Air Cargo (lbs.)/ Sqft	Fair Share Air Cargo (lbs.)	Fair Share %
BFM	Mobile Downtown	49,552,103	304,920	163	72,974,633	68%
FLL	Fort Lauderdale/Hollywood International	209,195,423	2,221,560	94	531,672,325	39%
JAX	Jacksonville International	176,600,495	2,134,440	83	510,822,430	35%
MCO	Orlando International	457,612,250	7,361,640	62	1,761,816,137	26%
MIA	Miami International	4,697,243,557	14,244,120	330	3,408,957,850	138%
PBI	Palm Beach International	63,691,941	522,720	122	125,099,371	51%
RSW	Southwest Florida International	40,087,500	784,080	51	187,649,056	21%
TPA	Tampa International	228,017,695	1,350,360	169	323,173,374	71%
ATL	Hartsfield - Jackson Atlanta International	1,524,208,254	5,793,480	263	1,386,518,025	110%
MSY	New Orleans (LANOIA)	107,844,978	2,570,040	42	615,071,906	18%
BNA	Nashville International	101,962,603	2,831,400	36	677,621,591	15%
MEM	Memphis International	11,508,313,229	32,844,240	350	7,860,410,455	146%
DAL	Dallas Love Field	32,011,486	261,360	122	62,549,685	51%
DFW	Dallas/Fort Worth International	1,795,876,887	9,670,320	186	2,314,338,357	78%
IAH	George Bush Intercontinental/Houston	1,046,120,725	9,191,160	114	2,199,663,934	48%
	TOTAL	22,038,339,128	92,085,840	239	22,038,339,128	100%

Source: TMG Consulting survey of airports and analysis of aerial layouts; Individual airport websites; TMG Consulting analysis

*Note: Dataset includes all-cargo peers in same region as LANOIA.

**Note: Projection for 2020 Total Cargo Landed Weight based on USDOT projected rate for air cargo growth.



If air cargo were to grow by the rates forecast by Boeing (4.7%), this region that currently handles over 17.9 billion pounds of cargo annually, would grow to more than 22.7 billion pounds annually by 2020 (see **Table 24**). Consistent with the BASELINE and LOW GROWTH, this projection allocates this growth evenly among the regional operators, applying the 4.7% CAGR to each’s 2015 air cargo handled to arrive at a projection of 2020 air cargo.

Table 24: 2020 Projection of Total Air Cargo in lbs: MED GROWTH

ID	Airport	Proj. 2020** Total Air Cargo in lbs.	Sqft of Cargo Facilities & Ramp	Total Air Cargo (lbs.)/ Sqft	Fair Share Air Cargo (lbs.)	Fair Share %
BFM	Mobile Downtown	51,226,530	304,920	168	75,440,537	68%
FLL	Fort Lauderdale/Hollywood International	216,264,398	2,221,560	97	549,638,197	39%
JAX	Jacksonville International	182,568,046	2,134,440	86	528,083,758	35%
MCO	Orlando International	473,075,540	7,361,640	64	1,821,350,105	26%
MIA	Miami International	4,855,969,286	14,244,120	341	3,524,150,795	138%
PBI	Palm Beach International	65,844,172	522,720	126	129,326,635	51%
RSW	Southwest Florida International	41,442,107	784,080	53	193,989,952	21%
TPA	Tampa International	235,722,698	1,350,360	175	334,093,806	71%
ATL	Hartsfield - Jackson Atlanta International	1,575,713,155	5,793,480	272	1,433,370,201	110%
MSY	New Orleans (LANOIA)	111,489,195	2,570,040	43	635,855,954	18%
BNA	Nashville International	105,408,046	2,831,400	37	700,519,271	15%
MEM	Memphis International	11,897,193,513	32,844,240	362	8,126,023,546	146%
DAL	Dallas Love Field	33,093,195	261,360	127	64,663,317	51%
DFW	Dallas/Fort Worth International	1,856,561,811	9,670,320	192	2,392,542,742	78%
IAH	George Bush Intercontinental/Houston	1,081,470,452	9,191,160	118	2,273,993,327	48%
	TOTAL	22,783,042,144	92,085,840	247	22,783,042,144	100%

Source: TMG Consulting survey of airports and analysis of aerial layouts; Individual airport websites; TMG Consulting analysis

*Note: Dataset includes all-cargo peers in same region as LANOIA.

**Note: Projection for 2020 Total Cargo Landed Weight based on Boeing projected rate for air cargo growth.



In the most aggressive scenario, cargo growth is projected at 5.2% annually, resulting in projected demand for 23.3 billion in air cargo in the region. The projections shown in **Table 25** allocate this growth evenly among the regional operators, applying the 5.2% CAGR to each’s 2015 air cargo handled to arrive at a projection of 2020 air cargo.

Table 25: 2020 Projection of Total Air Cargo in lbs: HIGH GROWTH

ID	Airport	Proj. 2020** Total Air Cargo in lbs.	Sqft of Cargo Facilities & Ramp	Total Air Cargo (lbs.)/ Sqft	Fair Share Air Cargo (lbs.)	Fair Share %
BFM	Mobile Downtown	52,461,443	304,920	172	77,259,174	68%
FLL	Fort Lauderdale/Hollywood International	221,477,861	2,221,560	100	562,888,268	39%
JAX	Jacksonville International	186,969,195	2,134,440	88	540,814,219	35%
MCO	Orlando International	484,479,923	7,361,640	66	1,865,257,203	26%
MIA	Miami International	4,973,031,634	14,244,120	349	3,609,107,133	138%
PBI	Palm Beach International	67,431,470	522,720	129	132,444,298	51%
RSW	Southwest Florida International	42,441,148	784,080	54	198,666,448	21%
TPA	Tampa International	241,405,241	1,350,360	179	342,147,771	71%
ATL	Hartsfield - Jackson Atlanta International	1,613,698,709	5,793,480	279	1,467,924,308	110%
MSY	New Orleans (LANOIA)	114,176,853	2,570,040	44	651,184,467	18%
BNA	Nashville International	107,949,107	2,831,400	38	717,406,617	15%
MEM	Memphis International	12,183,997,924	32,844,240	371	8,321,916,753	146%
DAL	Dallas Love Field	33,890,969	261,360	130	66,222,149	51%
DFW	Dallas/Fort Worth International	1,901,317,754	9,670,320	197	2,450,219,522	78%
IAH	George Bush Intercontinental/Houston	1,107,541,348	9,191,160	121	2,328,812,248	48%
TOTAL		23,332,270,579	92,085,840	253	23,332,270,579	100%

Source: TMG Consulting survey of airports and analysis of aerial layouts; Individual airport websites; TMG Consulting analysis

*Note: Dataset includes all-cargo peers in same region as LANOIA.

**Note: Projection for 2020 Total Cargo Landed Weight based on USDOT and ACI-NA projected rate for air cargo growth.



All of the growth projections hint that additional air cargo facilities in the study region could be feasible. In the MED GROWTH, and to maintain the current ratio of air cargo to square footage of cargo facilities and ramps (197 lbs.), an additional 23.7 million square feet of cargo facilities in this region would be necessary (see **Table 28**). In the BASELINE GROWTH, only an additional 11.8 million square feet would be required (see **Table 26**). By comparison, the Miami International Airport currently has 14.2 million square feet of cargo facilities and ramp, the Dallas/Fort Worth International Airport has more than 9.6 million square feet, and the New Orleans airport has nearly 2.6 million square feet. The following tables detail the projections of cargo facilities needed.

Table 26: Regional Air Cargo Operations and Projected Facilities Need by 2020: BASELINE GROWTH

2015 Actual	
Total Air Cargo (lbs.)	18,108,326,030
Cargo Facilities and Ramp (sq. ft.)	92,085,840
Total Air Cargo (lbs.)/ Sqft	197
2020 Projected	
Total Air Cargo (lbs.)	20,428,492,723
Total Air Cargo (lbs.)/Sqft if No Additional Built	222
2015 Total Air Cargo (lbs.)/Sq.ft.	197
Cargo Facilities and Ramp (sq. ft.) Needed at 2015 Ratio	103,884,529
Additional Cargo Facilities and Ramp Needed at 2015 Ratio	11,798,689

Source: TMG Consulting survey of airports and analysis of aerial layouts; Individual airport websites; TMG Consulting analysis and projections
 Note: Total Air Cargo projection based on historical growth patterns, at 2.4% CAGR

Table 27: Regional Air Cargo Operations and Projected Facilities Need by 2020: LOW GROWTH

2015 Actual	
Total Air Cargo (lbs.)	18,108,326,030
Cargo Facilities and Ramp (sq. ft.)	92,085,840
Total Air Cargo (lbs.)/ Sqft	197
2020 Projected	
Total Air Cargo (lbs.)	22,038,339,128
Total Air Cargo (lbs.)/Sqft if No Additional Built	239
2015 Total Air Cargo (lbs.)/Sq.ft.	197
Cargo Facilities and Ramp (sq. ft.) Needed at 2015 Ratio	112,071,042
Additional Cargo Facilities and Ramp Needed at 2015 Ratio	19,985,202

Source: TMG Consulting survey of airports and analysis of aerial layouts; Individual airport websites; TMG Consulting analysis and projections
 Note: Total Air Cargo projection based on USDOT projections, at 4.0% CAGR



Table 28: Regional Air Cargo Operations and Projected Facilities Need by 2020: MED GROWTH

2015 Actual	
Total Air Cargo (lbs.)	18,108,326,030
Cargo Facilities and Ramp (sq. ft.)	92,085,840
Total Air Cargo (lbs.)/ Sqft	197
2020 Projected	
Total Air Cargo (lbs.)	22,783,042,144
Total Air Cargo (lbs.)/Sqft if No Additional Built	247
2015 Total Air Cargo (lbs.)/Sq.ft.	197
Cargo Facilities and Ramp (sq. ft.) Needed at 2015 Ratio	115,858,063
Additional Cargo Facilities and Ramp Needed at 2015 Ratio	23,772,223

Source: TMG Consulting survey of airports and analysis of aerial layouts; Individual airport websites; TMG Consulting analysis and projections
 Note: Total Air Cargo projection based on Boeing projections, at 4.7% CAGR

Table 29: Regional Air Cargo Operations and Projected Facilities Need by 2020: HIGH GROWTH

2015 Actual	
Total Air Cargo (lbs.)	18,108,326,030
Cargo Facilities and Ramp (sq. ft.)	92,085,840
Total Air Cargo (lbs.)/ Sqft	197
2020 Projected	
Total Air Cargo (lbs.)	23,332,270,579
Total Air Cargo (lbs.)/Sqft if No Additional Built	253
2015 Total Air Cargo (lbs.)/Sq.ft.	197
Cargo Facilities and Ramp (sq. ft.) Needed at 2015 Ratio	118,651,041
Additional Cargo Facilities and Ramp Needed at 2015 Ratio	26,565,201

Source: TMG Consulting survey of airports and analysis of aerial layouts; Individual airport websites; TMG Consulting analysis and projections
 Note: Total Air Cargo projection based on USDOT observed growth and ACI-NA projections, at 5.2% CAGR

5.2.2 Plaquemines Air Cargo Volume Potential

Considering the varying projections for growth in the cargo industry, and the potential need for additional cargo facilities to meet the projected demand, a series of fair share models (3) were constructed to assess the volume of cargo that a Plaquemines Air Cargo Facility could conceivably capture. With all models, changing assumptions yields different results.



5.2.2.1 Scenario 1 (LOW)

Scenario 1 (LOW) models the proposed Plaquemines facilities at 4,000,000 square feet (estimated 2,000,000 square feet of ramp and 2,000,000 square feet of cargo space). To begin, the very conservative assumption was made that other airports in the region would grow to meet demand, to the extent that the current ratio of cargo facility square footage to cargo volume (197 lbs. per square foot) would be maintained. The proposed Plaquemines facility's fair share of air cargo in this case would equal 786,584,605 pounds, translating into approximately 19,919 operations per year²⁵, or an average of 55 operations per day. However, in Scenario 1 (LOW), the proposed facility's capture of fair share was modeled at less than 100%. If the facility were to operate at a significant discount to fair share, to match the relative poor performance of the New Orleans airport (18% of fair share), the result would be 137,917,533 pounds of air cargo in 2020, or an estimated 3,493 operations, averaging 10 operations per day. *Table 30* details these model factors and calculations of potential operations.

Table 30: Scenario 1 (LOW) Model for Plaquemines Total Air Cargo

Plaquemines Air Cargo Facilities (sq. ft.)	4,000,000
2015 Total Air Cargo (lbs.)/Sq.ft.	197
2020 Total Air Cargo (lbs./Sq.ft.)	197
Plaquemines Fair Share	786,584,605
Plaquemines Capture of Fair Share	18%
Potential Air Cargo (lbs.)	137,917,533
Est. Weight per Operation	39,488
Potential Annual Operations	3,493
Potential Average Daily Operations	10

Source: TMG Consulting analysis

The Scenario 1 (LOW) model is the most conservative case, and one which shows the potential downside of the proposed development. At only ten operations per day, the proposed air cargo facility would not likely be operationally feasible.

5.2.2.2 Scenario 2 (MID)

Scenario 2 (MID) models the case wherein the proposed 4,000,000 square foot facility operates in an environment where new competition enters the market equal to meet demand (ratio of air cargo to facilities and ramp remains constant at 197 lbs./sq. ft.), and Plaquemines is capable of capturing its fair share of that demand. As shown in *Table 31: Scenario 2 (MID) Model for Plaquemines Total Air Cargo*, the proposed Plaquemines facility's fair share of air cargo would equal 786,584,605 pounds, translating into approximately 19,919 operations per year, or an average of 55 operations per day.

²⁵ Proprietary data from the Louis Armstrong New Orleans International Airport was reviewed in terms of the average cargo weight per all-cargo operation. These operations largely included flights by FedEx and UPS, but also included other smaller cargo operators. On average, these flights carried 39,488 pounds of cargo (includes both arrivals and departures). This figure was applied to projected cargo weight to arrive at the number of aircraft operations.



Table 31: Scenario 2 (MID) Model for Plaquemines Total Air Cargo

Plaquemines Air Cargo Facilities (sq. ft.)	4,000,000
2015 Total Air Cargo (lbs.)/Sq.ft.	197
2020 Total Air Cargo (lbs./Sq.ft.)	197
Plaquemines Fair Share	786,584,605
Plaquemines Capture of Fair Share	100%
Potential Air Cargo (lbs.)	786,584,605
Est. Weight per Operation	39,488
Potential Annual Operations	19,919
Potential Average Daily Operations	55

Source: TMG Consulting analysis

It should be noted that, as shown through the fair share analyses of existing operations, facilities more typically capture a significant premium or discount to their fair share. A myriad of market dynamics, facility location, cargo facility and ramp offerings, environmental, political, and other factors influence whether an airport will perform better or worse than the regional average.

5.2.2.3 Scenario 3 (HIGH)

The most aggressive model run is Scenario 3 (HIGH). In this model, the 4,000,000-square foot facility is modeled to operate in an environment wherein no new competition comes on line in the region, and Plaquemines is capable of capturing its fair share of demand. Under these very optimistic assumptions, the facility’s fair share of the regional air cargo differs with each growth projection. **Table 32** shows the projected air cargo for the Plaquemines facility if it were to capture 100% of its fair share of regional cargo demand in 2020.

Table 32: Fair Share Model Projections for Plaquemines Total Air Cargo in lbs, 2020 (Scenario 3 HIGH)

Growth	Total Air Cargo for Region (lbs.)	Plaquemines Air Cargo Facilities (sq. ft.)	Plaquemines Capture of Fair Share	Projected Air Cargo (lbs.)
2015 Existing	18,108,326,030	-	-	-
2020 Baseline	20,428,492,723	4,000,000	100%	850,426,774
2020 Low	22,038,339,128	4,000,000	100%	917,443,783
2020 Med	22,783,042,144	4,000,000	100%	948,445,354
2020 High	23,332,270,579	4,000,000	100%	971,309,428

Source: TMG Consulting analysis

Note: Model assumes 4 million square feet, at 100% fair share, and no additional competing facilities on-line by 2020

In the Baseline case for cargo growth, a total of 20.4 billion pounds of air cargo is expected to be transported in the region in 2020. If no new competition were to come on line, and the Plaquemines facility captured 100% of its fair share of that demand, it would translate into over 850 million pounds of air cargo, for approximately 21,536 operations, or an average of 59 operations per day (see **Table 33**).



In the most aggressive growth assumption, the facility could potentially handle 971 million pounds of cargo in 2020, or an estimated average of 67 operations per day.

Table 33: Fair Share Model Projections for Plaquemines Total Air Cargo in lbs, 2020 (Scenario 3 HIGH)

Growth	Total Air Cargo for Region (lbs.)	Plaquemines Air Cargo Facilities (sq. ft.)	Plaquemines Capture of Fair Share	Potential Air Cargo (lbs.)
2015 Existing	18,108,326,030	-	-	-
2020 Baseline	20,428,492,723	4,000,000	100%	850,426,774
2020 Low	22,038,339,128	4,000,000	100%	917,443,783
2020 Med	22,783,042,144	4,000,000	100%	948,445,354
2020 High	23,332,270,579	4,000,000	100%	971,309,428

Source: TMG Consulting analysis
 Note: Model assumes 2 million square feet, at 100% fair share, and no additional competing facilities on-line by 2020

5.2.3 Summary of Potential Cargo Volume and Operations

The volume of air cargo handled at the proposed Plaquemines Air Cargo Facility could potentially range from nearly 138 million pounds per year to over 971 million pounds per year, for an average of between 10 and 67 operations per day.

Table 34: Summary of Model Projections for Plaquemines Total Air Cargo and Operations, 2020

Model	Plaquemines Air Cargo Facilities (sq. ft.)	Plaquemines Capture of Fair Share	Potential Air Cargo (lbs.)	Potential Average Daily Operations
Scenario 1 LOW	4,000,000	18%	137,917,533	10
Scenario 2 MID	4,000,000	100%	786,584,605	55
Scenario 3 HIGH				
Baseline Growth	4,000,000	100%	850,426,774	59
Low Growth	4,000,000	100%	917,443,783	64
Med Growth	4,000,000	100%	948,445,354	66
High Growth	4,000,000	100%	971,309,428	67

Source: TMG Consulting analysis and projections

5.2.4 Plaquemines Air Cargo Trucking Projections

The potential air cargo facility located at the NAS/JRB has primary access via Hwy 23 (Belle Chasse Hwy) and future secondary access via the Peters Rd extension and bridge. Belle Chasse Hwy from Russell Dr to the near 50-year-old vertical lift Judge Perez Bridge (Belle Chasse Hwy bridge) over the Gulf Intracoastal Waterway (GIWW) is a 4-lane, divided major arterial with a posted speed limit of 45mph. A traffic study was not conducted for this analysis. There are ongoing Regional Planning Commission (RPC) studies in the project area that are dealing with traffic related needs. The study team was provided preliminary



information from the RPC that helped form the basis for the traffic analysis including *LA 23 Corridor Traffic Study, Lapalco Boulevard to Woodland Highway* (RPC/BKI 2016) and *Traffic Analysis Report - Existing Conditions LA 23 New Orleans Gulf Coast Railway Relocation PE/NEPA Project* (RPC/HDR/BKI 2015). Identifying the magnitude and locations of traffic demands through trip generation analysis is the first step in determining the need for future transportation system improvements.

5.2.4.1 Traffic and Mobility Needs

The potential air cargo facility located at the NAS JRB has primary access via Hwy 23 (Belle Chasse Hwy) and future secondary access via the Peters Rd extension and bridge. Belle Chasse Hwy from Russell Dr to the near 50-year-old vertical lift Judge Perez Bridge (Belle Chasse Hwy bridge) over the Gulf Intracoastal Waterway (GIWW) is a 4-lane, divided major arterial with a posted speed limit of 45mph. A traffic study was not conducted for this analysis. There are ongoing Regional Planning Commission (RPC) studies in the project area that are dealing with traffic related needs. The study team was provided preliminary information from the RPC that helped form the basis for the traffic analysis including *LA 23 Corridor Traffic Study, Lapalco Boulevard to Woodland Highway* (RPC/BKI 2016) and *Traffic Analysis Report - Existing Conditions LA 23 New Orleans Gulf Coast Railway Relocation PE/NEPA Project* (RPC/HDR/BKI 2015).

The access routes are illustrated in the following map.



Figure 27:

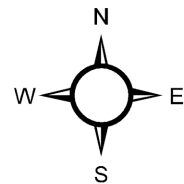
Plaquemines Parish Land Use and Transportation Sub-Area Analysis Access Routes



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

- RPC Defined Study Area
- Potential Development Site
- Access Routes



Source (Citation) for 2014 three inch pixel imagery (geotiffs)
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 Reproduction and distribution of this data is prohibited. Please refer any requests for data to the Deputy Director for Management, Finance and Interoperability of GOHSEP. This imagery was distributed by the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, St. Tammany and Tangipahoa Parishes (RPC) with permission from GOHSEP. GOHSEP is not responsible for any errors arising from any use or alterations made to the data. Under no circumstances is resale or distribution of the data permitted.
 Imagery Information: The red, green, blue (true color) and near infrared four-band aerial imagery was captured in the winter and early spring of 2014 by Airborn Map Company, Inc.
 The imagery is projected to UTM 15 NAD 83; unit of measure is meters. The spatial resolution is approximately a three inch pixel.
 Any use of the data must be accompanied with this citation and accompanying seals and logos embedded within.

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Digital Engineering developed a trip generation analysis based on the Institute of Transportation Engineers (ITE) Trip Generation Manual 9th Edition and ITE's Transportation Planning Handbook 4th Edition. TMG provided cargo weight, percent capture, and operational estimates and analysis. The analyses for trips generated from the cargo facility are minimal and should not present enough new trips to warrant a Level of Service change.

Table 35: Trip Generation Analysis of Cargo Weight Scenario 1 LOW

Truck Type	Cargo Weight (100% Factor)	Cargo Weight (50% Factor)	Daily Activity			
			Route Assignment	Route % Split	Daily Trips (100% Factor)	Impact on Existing Network
Single Unit Truck 12% Capture						
3 Axle Single Unit	4,742	2,371	Hwy 23 Southbound	10	1	No Impact
3 Axle Single Unit	11,637	5,819	Hwy 23 Northbound	25	1	No Impact
3 Axle Single Unit	28,495	14,248	Peters Rd Extension	65	2	No Impact
22,500 lbs max per trip						
Four Axle Tractor Trailer 52% Capture						
2 Axle Tractor/2 Axle Trailer	19,648	9,824	Hwy 23 Southbound	10	1	No Impact
2 Axle Tractor/2 Axle Trailer	39,498	19,749	Hwy 23 Northbound	20	2	No Impact
2 Axle Tractor/2 Axle Trailer	137,440	68,720	Peters Rd Extension	70	2	No Impact
33,000 lbs max per trip						
5 Axle Tractor Trailer 36% Capture						
3 Axle Tractor/2 Axle Trailer	6,876	3,438	Hwy 23 Southbound	5	1	No Impact
3 Axle Tractor/2 Axle Trailer	20,404	10,202	Hwy 23 Northbound	15	1	No Impact
3 Axle Tractor/2 Axle Trailer	108,914	54,457	Peters Rd Extension	80	4	No Impact
40,000 lbs max per trip						
Total Daily Cargo Weight (rounded)	377,856					
Total Annual Cargo Weight	137,917,533					

Source Data: TMG; Analysis Digital Engineering



Table 36: Trip Generation Analysis of Cargo Weight Scenario 2 MID

Truck Type	Cargo Weight (100% Factor)	Cargo Weight (50% Factor)	Daily Activity			Impact on Existing Network
			Route Assignment	Route % Split	Daily Trips (100% Factor)	
Single Unit Truck 12% Capture						
3 Axle Single Unit	25,844	12,922	Hwy 23 Southbound	10	2	No Impact
3 Axle Single Unit	64,652	32,326	Hwy 23 Northbound	25	3	No Impact
3 Axle Single Unit	168,092	84,046	Peters Rd Extension	65	8	No Impact
22,500 lbs max per trip						
Four Axle Tractor Trailer 52% Capture						
2 Axle Tractor/2 Axle Trailer	112,062	56,031	Hwy 23 Southbound	10	4	No Impact
2 Axle Tractor/2 Axle Trailer	224,122	112,061	Hwy 23 Northbound	20	7	No Impact
2 Axle Tractor/2 Axle Trailer	784,328	392,164	Peters Rd Extension	70	24	No Impact
33,000 lbs max per trip						
5 Axle Tractor Trailer 36% Capture						
3 Axle Tractor/2 Axle Trailer	38,790	19,395	Hwy 23 Southbound	5	1	No Impact
3 Axle Tractor/2 Axle Trailer	116,372	58,186	Hwy 23 Northbound	15	3	No Impact
3 Axle Tractor/2 Axle Trailer	620,764	310,382	Peters Rd Extension	80	16	No Impact
40,000 lbs max per trip						
Total Daily Cargo Weight (rounded)	2,155,026					
Total Annual Cargo Weight	786,584,605					

Source Data: TMG; Analysis Digital Engineering



Table 37: Trip Generation Analysis of Cargo Weight Scenario 3 Med Growth

Truck Type	Cargo Weight (100% Factor)	Cargo Weight (50% Factor)	Daily Activity			
			Route Assignment	Route % Split	Daily Trips (100% Factor)	Impact on Existing Network
Single Unit Truck 12% Capture						
3 Axle Single Unit	31,876	15,938	Hwy 23 Southbound	10	2	No Impact
3 Axle Single Unit	79,792	39,896	Hwy 23 Northbound	25	4	No Impact
3 Axle Single Unit	199,988	99,994	Peters Rd Extension	65	9	No Impact
22,500 lbs max per trip						
Four Axel Tractor Trailer 52% Capture						
2 Axle Tractor/2 Axle Trailer	137,994	68,997	Hwy 23 Southbound	10	5	No Impact
2 Axle Tractor/2 Axle Trailer	276,988	138,494	Hwy 23 Northbound	20	9	No Impact
2 Axle Tractor/2 Axle Trailer	924,952	462,476	Peters Rd Extension	70	28	No Impact
33,000 lbs max per trip						
5 Axel Tractor Trailer 36% Capture						
3 Axle Tractor/2 Axle Trailer	47,660	23,830	Hwy 23 Southbound	5	2	No Impact
3 Axle Tractor/2 Axle Trailer	143,480	71,740	Hwy 23 Northbound	15	4	No Impact
3 Axle Tractor/2 Axle Trailer	755,750	377,875	Peters Rd Extension	80	19	No Impact
40,000 lbs max per trip						
Total Daily Cargo Weight (rounded)	2,598,480					
Total Annual Cargo Weight	948,445,354					

Source Data: TMG; Analysis Digital Engineering

5.2.4.2 *Infrastructure and Utility Needs*

Growth affects costs of water and wastewater (w/ww) infrastructure, demand for w/ww, and efficiency of w/ww systems. In addition, the success of a planned development will require the assessment of the best ways to supply sufficient w/ww to meet projected demands. The existing Plaquemines Parish w/ww infrastructure for the study area contains available capacity to deliver service. Plaquemines Parish should develop a framework for designing a system that best serves the new air cargo facility in the potential development area. The framework should project demands based on the build-out of the air cargo



facility; system designs and phasing plans will need to reflect more specific demands from the development as they are planned. Plaquemines Parish should encourage innovative design and construction alternatives to ensure environmental best practices and reduced operation and maintenance costs. The Plaquemines Parish government provided verbal information related to the utility infrastructure for this project.

The following map images were obtained from NAS/JRB Master Plan Map Book, The Ram Professional Group, Inc, 2012.



LEGEND





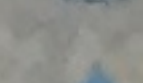

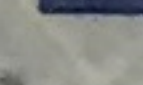




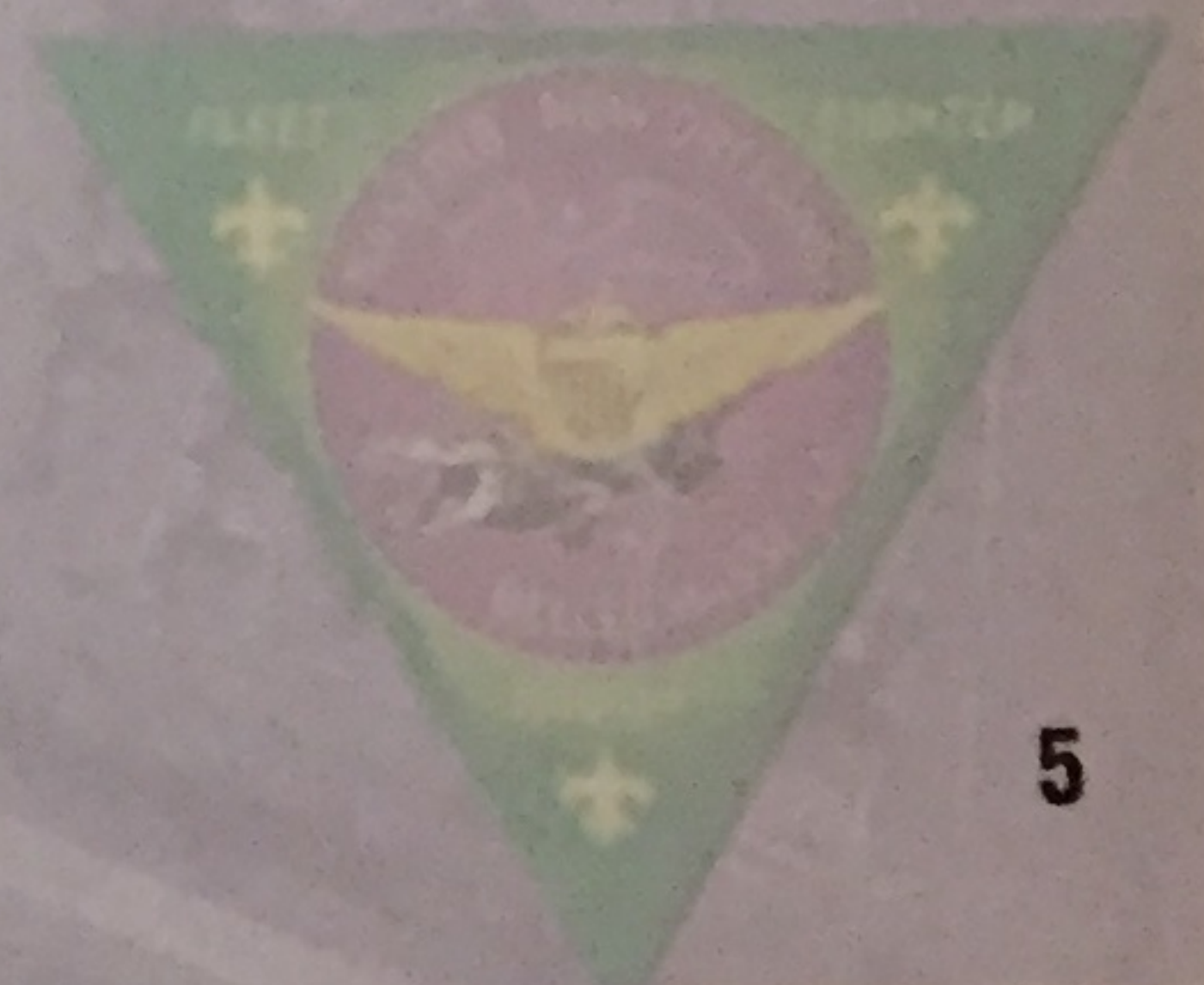
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-  Gas Service Line
-  Fire Hydrant
-  Water Tank
-  Monitoring Well
-  Main Water Line
-  Bldg/Facility Service Water Line
-  PPV Housing Units
-  Existing Buildings
-  Growth Boundary
-  Installation Boundary



EXHIBIT 2.3, POTABLE WATER & GAS

NAVAL AIR STATION
JOINT RESERVE BASE NEW ORLEANS
MASTER PLAN
MAP BOOK



LEGEND


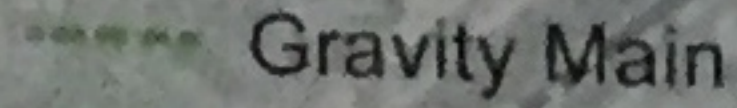
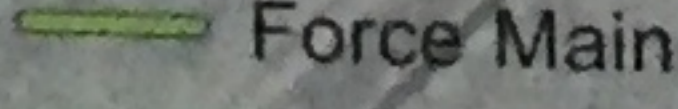
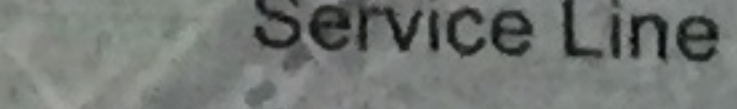
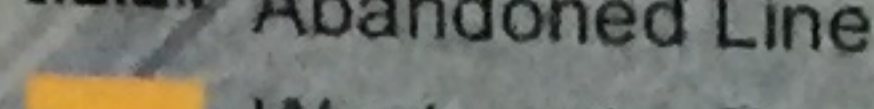
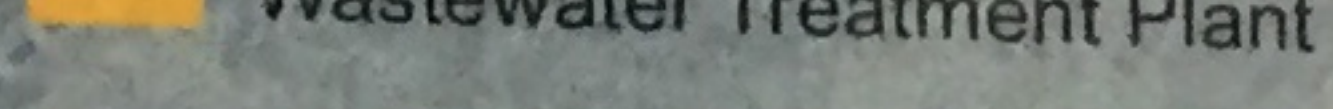
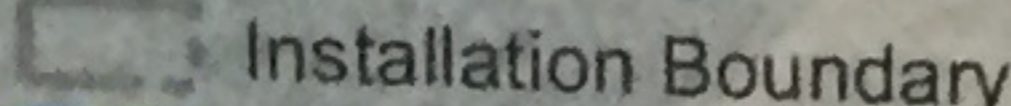
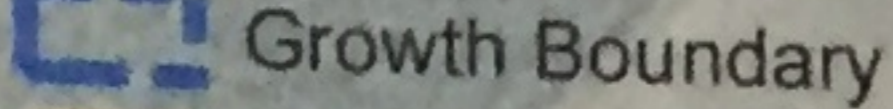
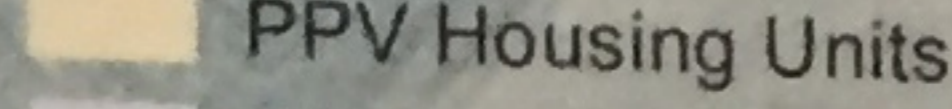
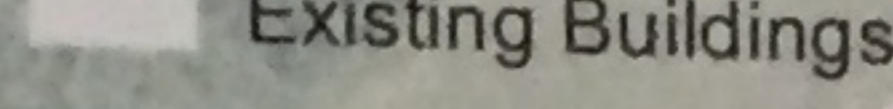
-  Pump Station
- Sanitary Sewer Lines**
-  Gravity Main
-  Force Main
-  Service Line
-  Abandoned Line
-  Wastewater Treatment Plant
-  Installation Boundary
-  Growth Boundary
-  PPV Housing Units
-  Existing Buildings



EXHIBIT 2.4, SANITARY SEWER
NAVAL AIR STATION
JOINT RESERVE BASE NEW ORLEANS
MASTER PLAN
MAP BOOK






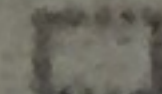





EXHIBIT 2.5, STORMWATER
 NAVAL AIR STATION
 JOINT RESERVE BASE NEW ORLEANS
 MASTER PLAN
 MAP BOOK



LEGEND

Electric

-  Primary-UG
-  Secondary-UG
-  Service-UG
-  Installation Boundary
-  Growth Boundary
-  PPV Housing Units
-  Existing Buildings



0 1,000 Feet

Aerial Source: NAVFAC
Date Taken: November, 2011

(Mapping is for Planning Purposes Only)

EXHIBIT 2.6, ELECTRICAL
NAVAL AIR STATION
JOINT RESERVE BASE NEW ORLEANS
MASTER PLAN
MAP BOOK



5.2.4.3 *Land Compatibility and Resulting Regulatory Needs*

Achieving the purposes of this sub-area analysis requires a unique approach to the development of the NAS/JRB area, one that provides the flexibility to respond to evolving markets, such as air cargo demands, while ensuring that future development will result in the creation of a sustainable facility that will attract regional investment and growth. Site specific intensities will vary based on site constraints, property owner preferences, and the need to ensure internal and external land use compatibility.

The following figure from the NAS/JRB Master Plan Map Book (Map Book) illustrates the land availability and ownership.



LEGEND

-  Installation Boundary
-  Buffer Land
-  Private Lands







EXHIBIT 2.7, LAND

NAVAL AIR STATION
JOINT RESERVE BASE NEW ORLEANS
MASTER PLAN
MAP BOOK



The Map Book figure to follow identifies the noise zones. An air cargo facility is an acceptable usage for the land in the study area.

LEGEND

-  Installation Boundary
-  Noise Zone 1 (<65 DNL/CNEL) - N/A
-  Noise Zone 2 (65-74 DNL/CNEL)
-  Noise Zone 3 (>74 DNL/CNEL)

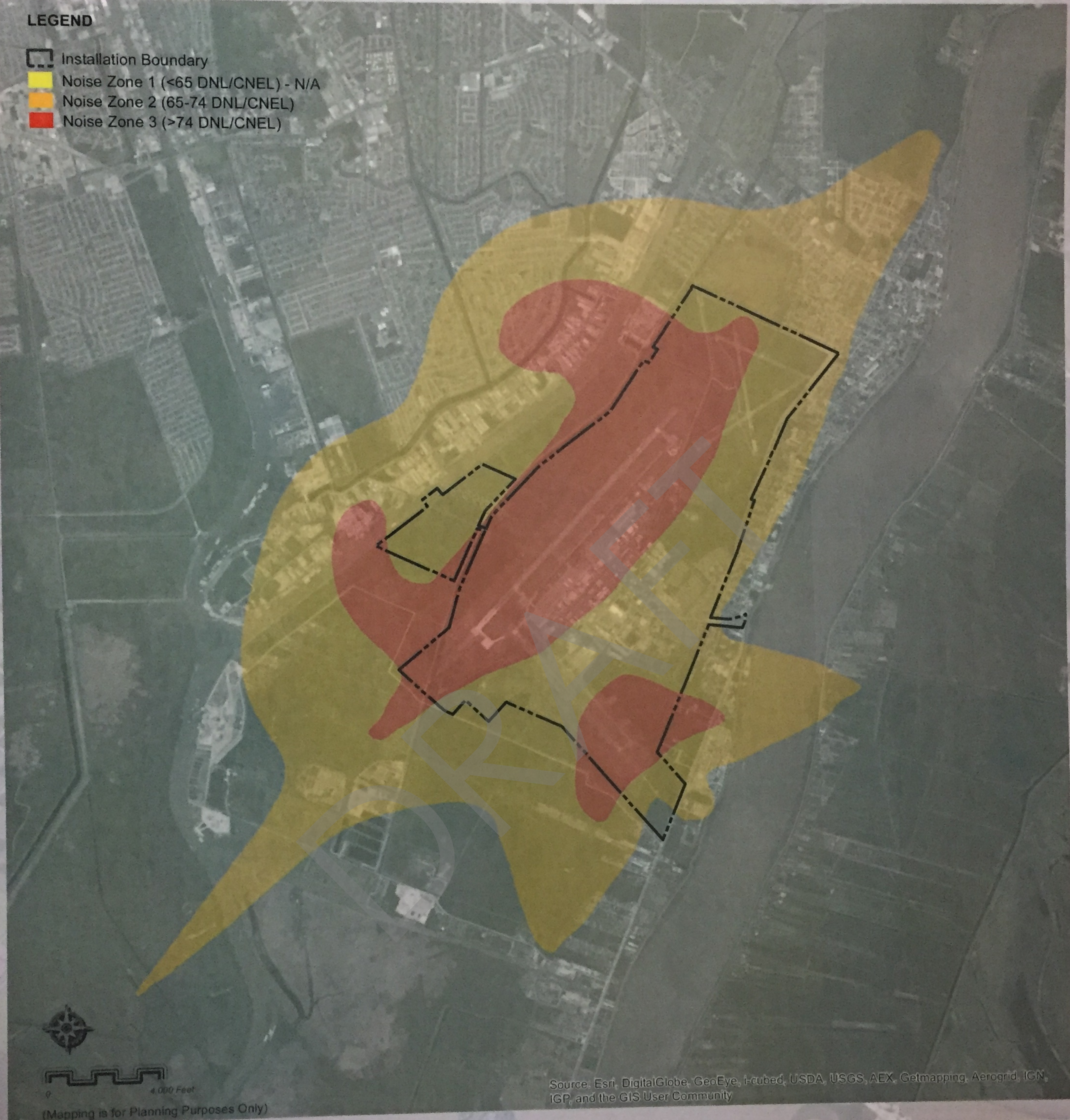


EXHIBIT 2.8, NOISE ZONES

NAVAL AIR STATION
JOINT RESERVE BASE NEW ORLEANS
MASTER PLAN
MAP BOOK



The following figure from the Map Book identifies the natural environment.



LEGEND


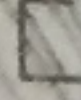


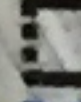


-  Bird Survey Site ID
-  100 Year Flood Zone
-  Wetland Area
-  Wildlife Mgmt. Area
-  Installation Boundary
-  Growth Boundary
-  Surface Water



EXHIBIT 2.12, NATURAL ENVIRONMENT

NAVAL AIR STATION
JOINT RESERVE BASE NEW ORLEANS
MASTER PLAN
MAP BOOK



5.2.4.4 *Build-out Potential and Potential Timing of Build-out*

The success of this sub-area analysis will rely on the long-term commitment and determination of many. Plaquemines Parish Government, NAS/JRB, and the Plaquemines Port will need to continue to support efforts to upgrade site infrastructure, facilitate private investment, and guide development. Cargo facility operations will need to be sufficient to be feasible for long term sustainability. Cargo facility build-out potential is based on the scenarios modeled by TMG for air cargo weight. It is assumed a likely timing of build-out to be 5 years with the proper investment. No off-site transportation related improvements are required based on the trip generation analysis.

5.2.4.5 *Opinion of Probable Costs*

No significant traffic related impacts are projected. Several RPC projects to increase capacity, efficiency, and safety that provide direct access to the study area are underway. Therefore, transportation improvements should not be required at this planning level.

5.2.5 Consistency with Adopted Plans

5.2.5.1 *Plaquemines Parish Comprehensive Plan*

The impacts caused by the joint venture between Plaquemines Parish and the NAS/JRB, have the potential to affect various aspects of life for citizens in the region. The potential effects include infrastructure and utility needs, multi-modal transportation, and economic development. Each of these characteristics of change have been addressed by and are consistent with the enactment of the Plaquemines Parish Comprehensive Plan, as part of the long-term planning efforts and visioning for the Parish.²⁶

Adjustments to roadways necessary for the increased movement of airfreight between the Naval Air Station and the Plaquemines Parish Port, rail yards, or alternative transfer points have been addressed in the Task 4 of the Comprehensive Plan. Since the implementation of the Plaquemines Parish Comprehensive Plan, the Parish has dedicated more than \$60 million for transportation infrastructure investments. The priorities include updating the most heavily traveled areas, including extending Peters Road in Jefferson Parish south to Belle Chasse Highway, widening Belle Chasse Highway to four lanes between Happy Jack and Port Sulphur, replacing Belle Chasse Bridge and Tunnel, elevating Belle Chasse Highway near Myrtle Grove, and widening and elevating Tidewater Road. Of these projects the extension of Peters Road will improve access to the Naval Base, and provide a critical link between rail and port facilities. Groundbreaking was scheduled for early 2011 ending in 2014.²⁷

Other areas of transportation have been slated for improvement, including rail service. The ease at which materials can be transported between the airport, rail, and port facilities will prove to be imperative to the development of air freight in the region. In 2010, the Parish has dedicated both time and funds to update track infrastructure throughout the Parish, including \$585 million dollars from capital programs.²⁸

Furthermore, any expansion of business activity caused by partial civilian use at the Naval Air Station/Joint Reserve Base will result in potential economic development of the region, consistent with the Comprehensive Plan. Other economic developments efforts in the region include the expansion of Plaquemines Port facility near Braithwaite or in central area of the parish, the increase of trade routes

²⁶ Plaquemines Parish, LA. *Plaquemines Parish Comprehensive Master Plan*. 2013

²⁷ Plaquemines Parish, LA. *Plaquemines Parish Comprehensive Master Plan*. 2013

²⁸ Plaquemines Parish, LA. *Comprehensive Port Development Master Plan for Plaquemines Parish*. 2010.



from the Panama Canal to the Gulf of Mexico, the expansion of the ecotourism in the Wetlands Discovery Center, and investments in Fort Jackson, Fort St. Phillip, and other historic sites to increase tourism.²⁹

5.2.5.2 *Port Master Plan*

Many of the developments described in the Plaquemines Parish Comprehensive Plan are also reflected in the Plaquemines Parish Port Master Plan. The impacts caused by the proposed developments in *Scenario 2 of the Cargo Airport Development between Plaquemines Parish and the Naval Air Station/Joint Reserve Base* are consistent with the adopted Plaquemines Parish Comprehensive Plan.³⁰

The influence of increased freight in the form of air-freight, through the proposed Cargo Airport Facility, would likely have no impact or low impact to the port facilities. Air-freight is typically categorized as quicker than land or sea travel, with less transport-related stresses, and less incorporated packaging or protection of goods. Due to the price and weight and size restrictions of air-freight, typical goods shipped are expensive and low weight, like computer parts. As such, the influence of the industry will likely have no or limited impact on the Ports Master Plan.³¹

Secondary effects of air-freight, including the increased shipment through other modes, have been addressed in the Port Master Plan. Due to the potential increases in the goods imported through the port, from the expansion of the Panama Canal, the Port has been preparing itself to incorporate larger areas of storage of bulk items. Furthermore, the Port’s study of intermodal truck and rail services connected with the movement of materials to and from the Port indicates that the facility is currently working under capacity. Task 5: Intermodal Truck and Rail Access Analysis of the Port Master Plan, identifies that rail in the area are currently being underutilized (below 10% capacity). There is sufficient capacity on both sides of the river and will be only slightly impacted by any freight to the area.³²

²⁹ Ibid

³⁰ Ibid

³¹ Ibid

³² Plaquemines Parish, LA. *Comprehensive Port Development Master Plan for Plaquemines Parish*. 2010.



Section 6: Preferred Scenario

6.1 Consultant-Selected Scenario

Based upon the analyses and research conducted by the consultant team, the preferred scenario is the “build” scenario, wherein an air cargo facility would be developed at the study site.

6.2 Stakeholder Consensus

Three-fourths of responding strategic stakeholder firms think an Air Cargo Facility in Plaquemines Parish is preferable. Stakeholder firms support an Air Cargo Facility in Plaquemines Parish for several reasons, including that it would:

- enhance multi-modal development of the port of Plaquemines;
- generate a greater diversified business economy;
- be a welcome addition to our economic diversification model;
- benefit Plaquemines Parish’s economic development;
- foster both direct and indirect job creation;
- provide a necessary part in the overall shipment process to reduce shipment time and cost;
- facilitate the movement of goods while reducing the cost of the movement of goods;
- make the delivery of goods and products easier and quicker;
- give the geographic area West and South of the Mississippi River needed access to air freight;
- generate additional revenue, jobs and growth in the region;
- increase the number of shipping and receiving businesses;
- generate more business opportunities;
- be a huge benefit to assist the development of the river in Plaquemines parish for the facility of the inward and outward movement of cargo;
- better serve the industry in southern Plaquemines Parish.

Seventy-five percent of stakeholders agreed that an Air Cargo Facility would be advantageous to Plaquemines Parish’s economy, infrastructure and industry. The growth of our port would be greatly enhanced by adding this form of shipment and delivery method. The strategic location in regards to the central and western states is a key to growth of Plaquemines Parish and the regional economy. While some strategic stakeholders interviewed may not envision utilizing the Air Cargo Facility, this development could generate new and additional businesses, thereby increasing and further diversifying Plaquemines Parish’s economy.

6.3 Final Recommendation

It is the study team recommendation that the Parish of Plaquemines and NAS/JRB continue in the development of a potential air cargo facility at this site. Discussions with cargo operators, local, regional, and national businesses, and potential developers should commence at this time.

6.3.1 Connectivity Standards

The interior transportation system should be designed to provide for phased air cargo facility construction as development occurs and for internal and external connectivity for all modes of transportation based on best practices. Internal connectivity system will need to be connected to and through future development. Subsequent phasing decisions should be based on demands. External connectivity is



currently existing (Hwy 23) or planned (Peters Rd extension) and these facilities likely follow LA DOTD's Engineering Directives and Standards Manual (EDSM).



Section 7: Transportation Goals, Objectives and Policies

The RPC has expressed the need for economic competitiveness in their Transportation Improvement Program (TIP). "RPC is committed to fostering a planning and decision-making process that supports transportation investments that will produce economic benefits for our citizens and businesses and provide a foundation for long-term economic growth." Key investment decisions include the...Peters Road Extension to LA Hwy. 23. To be consistent with the RPC and their goals, objectives, and policies the consultant team has adopted the following from the TIP for this project:

Goal 4: Economic Competitiveness

Develop a multimodal transportation system that cultivates economic development, growth, and Resiliency.

Transportation infrastructure directly impacts the regional economy in a number of important ways. It provides a means for workers to access employment, and allows customers to access businesses. Businesses use it to deliver goods and services, and it is the means by which visitors reach the region. Finally, the shipment of goods to, from, and through the region via all freight modes is a significant source of employment and revenue.

The significant relationship between transportation and the economy means that the RPC's transportation decisions can have a substantial impact on the regional economy, as well as the development or revitalization of specific locations throughout the region. Individuals are also impacted in their ability to access jobs, affordable housing, and basic needs, an especially important consideration for traditionally disadvantaged or underserved populations. The RPC has a responsibility to not only recognize these impacts, but to strategically direct its transportation

Objective 4A: Invest in projects that improve freight movements and improve freight movement on the National Highway System.

Strategies

- Maintain an inventory of intermodal facilities, the connections to them, and their condition.
- Garner input from freight facility operators and freight carriers
- Foster relationships with freight stakeholders that are traditionally not part of the planning process, such as forwarders, brokers, and public-private partnerships.
- Include freight considerations in the development phases of all projects
- Develop a methodology for introducing freight-specific projects into the RPCs overall program

Objective 4D: Invest in projects that are in and will benefit identified employment centers.

Strategies

- Identify major employment centers through geographic analysis
- Proactively identify and plan for the transportation needs of portions of the region with employment that is growing or forecasted to grow, or are otherwise identified as economic development areas
- During project development, ensure impacts on access and employment are included in feasibility and design analyses.

7.1 Projected Traffic Volumes

Digital Engineering developed a trip generation analysis based on the Institute of Transportation Engineers (ITE), Trip Generation Manual 9th Edition and ITE’s Transportation Planning Handbook 4th Edition. TMG provided cargo weight, percent capture, and operational estimates and analysis. The analyses for trips generated from the cargo facility are minimal and should not present enough new trips to warrant a Level of Service change.

Trip Generation Analysis of Cargo Weight Scenario 3 Med Growth

Truck Type	Cargo Weight (100% Factor)	Cargo Weight (50% Factor)	Daily Activity		Daily Trips (100% Factor)	Impact on Existing Network
			Route Assignment	Route % Split		
Single Unit Truck 12% Capture						
3 Axle Single Unit	31,876	15,938	Hwy 23 Southbound	10	2	No Impact
3 Axle Single Unit	79,792	39,896	Hwy 23 Northbound	25	4	No Impact
3 Axle Single Unit	199,988	99,994	Peters Rd Extension	65	9	No Impact
22,500 lbs max per trip						
Four Axel Tractor Trailer 52% Capture						
2 Axle Tractor/2 Axle Trailer	137,994	68,997	Hwy 23 Southbound	10	5	No Impact
2 Axle Tractor/2 Axle Trailer	276,988	138,494	Hwy 23 Northbound	20	9	No Impact
2 Axle Tractor/2 Axle Trailer	924,952	462,476	Peters Rd Extension	70	28	No Impact
33,000 lbs max per trip						
5 Axel Tractor Trailer 36% Capture						
3 Axle Tractor/2 Axle Trailer	47,660	23,830	Hwy 23 Southbound	5	2	No Impact
3 Axle Tractor/2 Axle Trailer	143,480	71,740	Hwy 23 Northbound	15	4	No Impact
3 Axle Tractor/2 Axle Trailer	755,750	377,875	Peters Rd Extension	80	19	No Impact
40,000 lbs max per trip						
Total Daily Cargo Weight (rounded)	2,598,480					
Total Annual Cargo Weight	948,445,354					

Source Data: TMG; Analysis Digital Engineering



7.2 Recommended Roadway Modifications

No significant traffic related impacts are projected. Several RPC projects to increase capacity, efficiency, and safety that provide direct access to the study area are underway. Therefore, transportation improvements should not be required at this planning level.

7.2.1 Arterial Roadways

There are ongoing Regional Planning Commission (RPC) studies in the project area that are dealing with traffic and transportation related issues. The study team was provided information from the RPC including LA 23 Corridor Traffic Study, Lapalco Boulevard to Woodland Highway (RPC/BKI 2016) and Traffic Analysis Report - Existing Conditions LA 23 New Orleans Gulf Coast Railway Relocation PE/NEPA Project (RPC/HDR/BKI 2015). Arterial roadway modifications are likely not needed at this stage of planning based on the trip generation analysis.

7.2.2 Existing Bus Routes

No public transit routes were observed for the purposes of this study.

7.2.3 Bicycle and Pedestrian Connections

No bicycle/pedestrian counts or linkages were studied for this sub-area analysis.

Section 8: Appendix

8.1 FAF Data Discrepancy Mitigation

As noted in *Section 3* of this study, differing government data sources report sometimes conflicting data regarding cargo operations. The data detailed in the preceding sections of this report were derived from the U.S. Census Bureau and the Bureau of Transportation Statistics. The U.S. Department of Transportation also oversees the publishing of cargo data through the Freight Analysis Framework (FAF). The FAF is a database tool that has aggregated multiple sources of freight data to provide estimates of the tonnage and value of cargo by geographic location in the United States. The data provided includes origin and destination segments for each location and can be broken out by mode or commodity.

During our study, TMG discovered the FAF-reported values for New Orleans air cargo in 2012 were significantly greater than the values reported by Louis Armstrong New Orleans International Airport (LANOIA) for the same year. TMG investigated this issue by contacting the U.S. Department of Transportation (USDOT) which oversees the FAF tool.

According to e-mails with staff at the USDOT, one of the sources of data used to create the FAF is the Air Carrier Statistics database (T-100) produced by the Bureau of Transportation Statistics.³³ The T-100 aggregates information from US air carriers both nationally and internationally and is organized in regional clusters. The region that includes New Orleans, also includes Memphis, the home of FedEx, one of the leading air cargo delivery companies. This clustering, according to initial emails with USDOT staff, distorted values reported for New Orleans air cargo. At this point, to gain further clarity and a solution for using the data, TMG decided to speak with a knowledgeable USDOT staff member about this matter.

Through a phone call to TMG by a USDOT staff member, the USDOT staff indicated that the FAF air cargo figures for New Orleans were distorted intentionally, by allocating a portion of Memphis's air cargo values to New Orleans. The staff member further explained this was done to conceal the detailed operations of FedEx, the dominant cargo air carrier in the Memphis market. At this point, TMG Consulting asked the USDOT staff what other cities in the FAF dataset were intentionally distorted. According to the staff member, in addition to New Orleans and Memphis, air cargo data for Cleveland, Columbus, and Louisville were also skewed.

Next, TMG discussed with the USDOT representative how best to reconcile the distorted FAF figures for New Orleans and Memphis air cargo. It was determined that the best approach was for TMG Consulting to adjust the FAF's reported values for New Orleans and replace them with the values LANOIA reported as a proxy for New Orleans CSA³⁴ air cargo volume. Likewise, TMG Consulting adjusted the FAF's reported values for Memphis by adding back the portion of its air cargo that was originally included in the figures for New Orleans. After making these adjustments, TMG was confident this data could be used meaningfully in its analysis.

³³Freight Analysis Framework. DOT, FHWA. www.ops.fhwa.dot.gov/freight/freight_analysis/faf/

³⁴New Orleans and other cities discussed in this section are Combined Statistical Areas (CSA) as designated by the United States Office of Management and Budget (OMB).

8.2 Number of Employees by Business by NAICS Code

Table 38: Plaquemines Parish Employees

NAICS Code	Description of Services	Number of Employees
111998	All Other Miscellaneous Crop Farming	1-4
213111	Drilling Oil & Gas Wells	1-4
213112	Support Activities For Oil & Gas Operations	1-4
221118	Other Electric Power Generation	1-4
236115	New Single-Family Hsng Constr (Exc For-Sale Bldrs)	1-4
236220	Commercial & Institutional Building Construction	1-4
237110	Water & Sewer Line & Related Structures Constr	1-4
238160	Roofing Contractors	1-4
238190	Other Foundation/Structure & Bldg Exterior Contrs	1-4
238210	Electrical Contr & Other Wiring Installation Contr	1-4
238220	Plumbing Htg & Air-Conditioning Contractors	1-4
238290	Other Building Equip Contractors	1-4
238320	Painting & Wall Covering Contractors	1-4
238330	Flooring Contractors	1-4
238340	Tile & Terrazzo Contractors	1-4
238910	Site Preparation Contractors	1-4
238990	All Other Specialty Trade Contractors	1-4
311919	Other Snack Food Manufacturing	1-4
312230	Tobacco Manufacturing	1-4
314999	All Other Miscellaneous Textile Product Mills	1-4
323111	Commercial Printing (Except Screen & Books)	1-4
324110	Petroleum Refineries	1-4
325510	Paint & Coating Manufacturing	1-4
331110	Iron & Steel Mills & Ferroalloy Manufacturing	1-4
332111	Iron & Steel Forging	1-4
332312	Fabricated Structural Metal Manufacturing	1-4
332618	Other Fabricated Wire Product Manufacturing	1-4
332710	Machine Shops	1-4
332812	Metal Coating & Non-Precious Engraving	1-4
332996	Fabricated Pipe & Pipe Fitting Manufacturing	1-4
333120	Construction Machinery Manufacturing	1-4
333241	Food Product Machinery Manufacturing	1-4
333415	Ac Refrigeration & Forced Air Heating	1-4
333611	Turbine & Turbine Generator Set Units Mfg	1-4
333613	Mechanical Power Transmission Equipment Mfg	1-4
333618	Other Engine Equipment Manufacturing	1-4
333911	Pump & Pumping Equipment Manufacturing	1-4
333923	Overhead Trvng Crane, Hoist & Monorail System Mfg	1-4
333999	All Other Misc General Purpose Machinery Mfg	1-4
334512	Automatic Environmental Control Manufacturing	1-4
335312	Motor & Generator Manufacturing	1-4
335313	Switchgear & Switchboard Apparatus Manufacturing	1-4
336510	Railroad Rolling Stock Manufacturing	1-4
336611	Ship Building & Repairing	1-4
336612	Boat Building	1-4
339910	Jewelry & Silverware Manufacturing	1-4
339950	Sign Manufacturing	1-4
339991	Gasket, Packing & Sealing Device Manufacturing	1-4
339999	All Other Miscellaneous Manufacturing	1-4
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	1-4
423510	Metal Service Ctrs & Other Metal Merchant Whls	1-4



Plaquemines Land Use and Transportation Sub-Area Analysis

NAICS Code	Description of Services	Number of Employees
423610	Electrical Apparatus/Wiring Supls/Rel Equip Whlsrs	1-4
423810	Constr & Mining (Exc Oil Well) Mach/Equip Whlsrs	1-4
423830	Industrial Machinery & Equipment Merchant Whlsrs	1-4
423840	Industrial Supplies Merchant Wholesalers	1-4
423850	Service Establishment Equip/Supls Merchant Whlsrs	1-4
423860	Transportation Equip/Supl (Exc Motor Vhcls) Whlsrs	1-4
423930	Recyclable Material Merchant Wholesalers	1-4
423990	Other Miscellaneous Durable Goods Merchant Whlsrs	1-4
424820	Wine & Distilled Alcoholic Beverage Mrchnt Whlsrs	1-4
441120	Used Car Dealers	1-4
441310	Automotive Parts & Accessories Stores	1-4
443142	Electronic Stores	1-4
444190	Other Building Material Dealers	1-4
444220	Nursery, Garden Center & Farm Supply Stores	1-4
445110	Supermarkets/Other Grocery (Exc Convenience) Strs	1-4
445220	Fish & Seafood Markets	1-4
446110	Pharmacies & Drug Stores	1-4
446191	Food (Health) Supplement Stores	1-4
447190	Other Gasoline Stations	1-4
448120	Women'S Clothing Stores	1-4
448190	Other Clothing Stores	1-4
448310	Jewelry Stores	1-4
451110	Sporting Goods Stores	1-4
452990	All Other General Merchandise Stores	1-4
453110	Florists	1-4
453210	Office Supplies & Stationery Stores	1-4
453220	Gift, Novelty & Souvenir Stores	1-4
453310	Used Merchandise Stores	1-4
453991	Tobacco Stores	1-4
453998	All Other Misc Store Retailers (Exc Tobacco Strs)	1-4
483211	Inland Water Freight Transportation	1-4
484230	Specialized Freight (Exc Used Gds) Trckng Lng-Dist	1-4
488119	Other Airport Operations	1-4
488190	Other Support Activities For-Air Transportation	1-4
488330	Navigational Services To Shipping	1-4
488410	Motor Vehicle Towing	1-4
488510	Freight Transportation Arrangement	1-4
493190	Other Warehousing & Storage	1-4
511110	Newspaper Publishers	1-4
511120	Periodical Publishers	1-4
511199	All Other Publishers	1-4
517210	Wireless Telecomms Carriers (Except Satellite)	1-4
519120	Libraries & Archives	1-4
522110	Commercial Banking	1-4
522291	Consumer Lending	1-4
522292	Real Estate Credit	1-4
523930	Investment Advice	1-4
524210	Insurance Agencies & Brokerages	1-4
531130	Lessors Of Miniwarehouses & Self-Storage Units	1-4
531311	Residential Property Managers	1-4
532111	Passenger Car Rental	1-4
532310	General Rental Centers	1-4
532411	Coml Air, Rail/Water Trnsprt'n Equip Rental/Leasing	1-4
532412	Construction, Mining/Forestry Mach/Equip Rntl/Lsng	1-4
532420	Office Machinery & Equipment Rental & Leasing	1-4



NAICS Code	Description of Services	Number of Employees
532490	Other Commercial & Industrial Mach/Equip Rntl/Lsng	1-4
541110	Offices Of Lawyers	1-4
541120	Offices Of Notaries	1-4
541211	Offices Of Certified Public Accountants	1-4
541213	Tax Preparation Services	1-4
541350	Building Inspection Services	1-4
541380	Testing Laboratories	1-4
541430	Graphic Design Services	1-4
541490	Other Specialized Design Services	1-4
541612	Human Resources Consulting Services	1-4
541613	Marketing Consulting Services	1-4
541690	Other Scientific & Technical Consulting Services	1-4
541711	Research & Development In Biotechnology	1-4
541870	Advertising Material Distribution Services	1-4
541890	Other Services Related To Advertising	1-4
541940	Veterinary Services	1-4
561492	Court Reporting & Stenotype Services	1-4
561510	Travel Agencies	1-4
561599	All Other Travel Arrangement/Reservation Services	1-4
561612	Security Guards & Patrol Services	1-4
561910	Packaging & Labeling Services	1-4
561990	All Other Support Services	1-4
562219	Other Nonhazardous Waste Treatment & Disposal	1-4
562910	Remediation Services	1-4
562991	Septic Tank & Related Services	1-4
611110	Elementary & Secondary Schools	1-4
611310	Colleges, Universities & Professional Schools	1-4
611430	Professional & Management Devmnt Training	1-4
611610	Fine Art Schools	1-4
611620	Sports & Recreation Instruction	1-4
621210	Offices Of Dentists	1-4
621493	Freestanding Ambulatory Surgical & Emergency Ctrs	1-4
624190	Other Individual & Family Services	1-4
713110	Amusement & Theme Parks	1-4
713210	Casinos (Except Casino Hotels)	1-4
713910	Golf Courses & Country Clubs	1-4
713930	Marinas	1-4
713990	All Other Amusement & Recreation Industries	1-4
721110	Hotels (Except Casino Hotels) & Motels	1-4
721211	Rv (Recreational Vehicle) Parks & Campgrounds	1-4
722320	Caterers	1-4
722410	Drinking Places Alcoholic Beverages	1-4
722513	Limited-Service Restaurants	1-4
811111	General Automotive Repair	1-4
811118	Other Automotive Mechanical/Electrical Rpr/Maint	1-4
811121	Automotive Body, Paint & Interior Repair/Maint	1-4
811191	Automotive Oil Change & Lubrication Shops	1-4
811192	Car Washes	1-4
811412	Appliance Repair & Maintenance	1-4
812111	Barber Shops	1-4
812112	Beauty Salons	1-4
812199	Other Personal Care Services	1-4
812320	Drycleaning & Laundry Svcs (Except Coin-Operated)	1-4
812910	Pet Care (Except Veterinary) Services	1-4
813110	Religious Organizations	1-4



Plaquemines Land Use and Transportation Sub-Area Analysis

NAICS Code	Description of Services	Number of Employees
813910	Business Associations	1-4
921120	Legislative Bodies	1-4
922110	Courts	1-4
922120	Police Protection	1-4
922130	Legal Counsel & Prosecution	1-4
926120	Regulation & Administration-Transportation Pgrms	1-4
221122	Electric Power Distribution	5-9
325120	Industrial Gas Manufacturing	5-9
423120	Motor Vehicle Supplies & New Parts Merchant Whlsrs	5-9
445120	Convenience Stores	5-9
491110	Postal Service	5-9
532120	Truck, Utility Trailer & Rv Rental & Leasing	5-9
541330	Engineering Services	5-9
611512	Flight Training	5-9
624110	Child & Youth Services	5-9
722515	Snack & Nonalcoholic Beverage Bars	5-9
928110	National Security	5-9
211111	Crude Petroleum & Natural Gas Extraction	10-19
237130	Power & Comm Line & Related Structures Constr	10-19
237990	Other Heavy & Civil Engineering Construction	10-19
238110	Poured Concrete Foundation & Structure Contractors	10-19
238210	Electrical Contr & Other Wiring Installation Contr	10-19
238390	Other Building Finishing Contractors	10-19
423220	Home Furnishing Merchant Wholesalers	10-19
423710	Hardware Merchant Wholesalers	10-19
423920	Toy & Hobby Goods & Supplies Merchant Wholesalers	10-19
424480	Fresh Fruit & Vegetable Merchant Wholesalers	10-19
424690	Other Chemical & Allied Products Merchant Whlsrs	10-19
424950	Paint, Varnish & Supplies Merchant Wholesalers	10-19
441222	Boat Dealers	10-19
444110	Home Centers	10-19
444130	Hardware Stores	10-19
445230	Fruit & Vegetable Markets	10-19
446130	Optical Goods Stores	10-19
448140	Family Clothing Stores	10-19
484110	General Freight Trucking, Local	10-19
487210	Scenic & Sightseeing Transportation, Water	10-19
515120	Television Broadcasting	10-19
517919	All Other Telecommunications	10-19
522130	Credit Unions	10-19
523910	Miscellaneous Intermediation	10-19
524126	Direct Property & Casualty Insurance Carriers	10-19
531110	Lessors Of Residential Buildings & Dwellings	10-19
531210	Offices Of Real Estate Agents & Brokers	10-19
531390	Other Activities Related To Real Estate	10-19
532299	All Other Consumer Goods Rental	10-19
541219	Other Accounting Services	10-19
541310	Architectural Services	10-19
541614	Process, Physical Distr/Logistics Consulting Svcs	10-19
541620	Environmental Consulting Services	10-19
541921	Photography Studios, Portrait	10-19
541990	All Other Professional, Scientific/Technical Svcs	10-19
561110	Office Administrative Services	10-19
561710	Exterminating & Pest Control Services	10-19
561730	Landscaping Services	10-19



NAICS Code	Description of Services	Number of Employees
562119	Other Waste Collection	10-19
621310	Offices Of Chiropractors	10-19
621399	Offices Of All Other Misc Health Practitioners	10-19
621999	All Other Misc Ambulatory Health Care Services	10-19
624310	Vocational Rehabilitation Services	10-19
624410	Child Day Care Services	10-19
711510	Independent Artists, Writers & Performers	10-19
712190	Nature Parks & Other Similar Institutions	10-19
713940	Fitness & Recreational Sports Centers	10-19
722511	Full-Service Restaurants	10-19
811122	Automotive Glass Replacement Shops	10-19
811310	Coml/Ind Mach/Equip (Exc Auto/Electrnc) Rpr/Maint	10-19
811490	Other Personal & Household Goods Repair & Maint	10-19
812113	Nail Salons	10-19
812210	Funeral Homes & Funeral Services	10-19
813312	Environment, Conservation & Wildlife Organizations	10-19
813319	Other Social Advocacy Organizations	10-19
922160	Fire Protection	10-19
999990	Unclassified Establishments	10-19
621111	Offices Of Physicians (Exc Mental Health Specs)	20-49
621340	Offices-Physical, Occpntl/Speech Thrpsts/Audlgsts	20-49
532230	Video Tape & Disc Rental	Did Not Respond

Source: InfoUSA 2016 Business Data, Regional Planning Commission

Table 39: Jefferson Parish Employees

NAICS Code	Description of Services	Number of Employees
213111	Drilling Oil & Gas Wells	1-4
213112	Support Activities For Oil & Gas Operations	1-4
236115	New Single-Family Hsng Constr (Exc For-Sale Bldrs)	1-4
236220	Commercial & Institutional Building Construction	1-4
237120	Oil & Gas Pipeline And Related Structures Constr	1-4
237210	Land Subdivision	1-4
237990	Other Heavy & Civil Engineering Construction	1-4
238210	Electrical Contr & Other Wiring Installation Contr	1-4
238220	Plumbing Htg & Air-Conditioning Contractors	1-4
238330	Flooring Contractors	1-4
238910	Site Preparation Contractors	1-4
238990	All Other Specialty Trade Contractors	1-4
311999	All Other Miscellaneous Food Manufacturing	1-4
321918	Other Millwork (Including Flooring)	1-4
324110	Petroleum Refineries	1-4
327910	Abrasive Product Manufacturing	1-4
332312	Fabricated Structural Metal Manufacturing	1-4
332510	Hardware Manufacturing	1-4
332618	Other Fabricated Wire Product Manufacturing	1-4
332710	Machine Shops	1-4
332919	Other Metal Valve & Pipe Fitting Manufacturing	1-4
333132	Oil & Gas Field Machinery & Equipment Mfg	1-4
333611	Turbine & Turbine Generator Set Units Mfg	1-4
333618	Other Engine Equipment Manufacturing	1-4

NAICS Code	Description of Services	Number of Employees
333999	All Other Misc General Purpose Machinery Mfg	1-4
334512	Automatic Environmental Control Manufacturing	1-4
336611	Ship Building & Repairing	1-4
336612	Boat Building	1-4
339920	Sporting & Athletic Goods Manufacturing	1-4
339991	Gasket, Packing & Sealing Device Manufacturing	1-4
423510	Metal Service Ctrs & Other Metal Merchant Whlrs	1-4
423610	Electrical Apparatus/Wiring Supls/Rel Equip Whlrs	1-4
423690	Other Electronic Parts & Equipment Merchant Whlrs	1-4
423830	Industrial Machinery & Equipment Merchant Whlrs	1-4
423840	Industrial Supplies Merchant Wholesalers	1-4
423860	Transportation Equip/Supl (Exc Motor Vhcls) Whlrs	1-4
423930	Recyclable Material Merchant Wholesalers	1-4
423990	Other Miscellaneous Durable Goods Merchant Whlrs	1-4
441222	Boat Dealers	1-4
441228	Motorcycle, Atv & All Other Motor Vehicle Dealers	1-4
443142	Electronic Stores	1-4
446110	Pharmacies & Drug Stores	1-4
451110	Sporting Goods Stores	1-4
453220	Gift, Novelty & Souvenir Stores	1-4
454310	Fuel Dealers	1-4
484230	Specialized Freight (Exc Used Gds) Trckng Lng-Dist	1-4
485320	Limousine Service	1-4
485510	Charter Bus Industry	1-4
488330	Navigational Services To Shipping	1-4
488410	Motor Vehicle Towing	1-4
488490	Other Support Activities For Road Transportation	1-4
493110	General Warehousing & Storage	1-4
522298	All Other Nondepository Credit Intermediation	1-4
531190	Lessors Of Other Real Estate Property	1-4
532412	Construction, Mining/Forestry Mach/Equip Rntl/Lsng	1-4
541330	Engineering Services	1-4
541350	Building Inspection Services	1-4
561110	Office Administrative Services	1-4
561311	Employment Placement Agencies	1-4
561720	Janitorial Services	1-4
561790	Other Services To Buildings & Dwellings	1-4
562910	Remediation Services	1-4
611110	Elementary & Secondary Schools	1-4
611410	Business & Secretarial Schools	1-4
713210	Casinos (Except Casino Hotels)	1-4
722511	Full-Service Restaurants	1-4
811111	General Automotive Repair	1-4
811118	Other Automotive Mechanical/Electrical Rpr/Maint	1-4
811121	Automotive Body, Paint & Interior Repair/Maint	1-4
811420	Reupholstery & Furniture Repair	1-4
811490	Other Personal & Household Goods Repair & Maint	1-4
812111	Barber Shops	1-4
812320	Drycleaning & Laundry Svcs (Except Coin-Operated)	1-4



NAICS Code	Description of Services	Number of Employees
813319	Other Social Advocacy Organizations	1-4
921120	Legislative Bodies	1-4
238220	Plumbing Htg & Air-Conditioning Contractors	5-9
238910	Site Preparation Contractors	5-9
336611	Ship Building & Repairing	5-9
441222	Boat Dealers	5-9
447190	Other Gasoline Stations	5-9
448120	Women's Clothing Stores	5-9
452990	All Other General Merchandise Stores	5-9
453220	Gift, Novelty & Souvenir Stores	5-9
484230	Specialized Freight (Exc Used Gds) Trckng Lng-Dist	5-9
531120	Lessors-Nonresidential Bldgs (Exc Miniwarehouses)	5-9
541213	Tax Preparation Services	5-9
561622	Locksmiths	5-9
561740	Carpet & Upholstery Cleaning Services	5-9
611110	Elementary & Secondary Schools	5-9
722511	Full-Service Restaurants	5-9
811111	General Automotive Repair	5-9
812199	Other Personal Care Services	5-9
813110	Religious Organizations	5-9
213111	Drilling Oil & Gas Wells	10-19
213112	Support Activities For Oil & Gas Operations	10-19
236115	New Single-Family Hsng Constr (Exc For-Sale Bldrs)	10-19
236118	Residential Remodelers	10-19
236220	Commercial & Institutional Building Construction	10-19
238210	Electrical Contr & Other Wiring Installation Contr	10-19
238220	Plumbing Htg & Air-Conditioning Contractors	10-19
238910	Site Preparation Contractors	10-19
321918	Other Millwork (Including Flooring)	10-19
333921	Elevator & Moving Stairway Manufacturing	10-19
334111	Electronic Computer Manufacturing	10-19
336611	Ship Building & Repairing	10-19
339910	Jewelry & Silverware Manufacturing	10-19
423130	Tire & Tube Merchant Wholesalers	10-19
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	10-19
423320	Brick, Stone/Related Constr Material Mrchnt Whlsrs	10-19
423510	Metal Service Ctrs & Other Metal Merchant Whls	10-19
423610	Electrical Apparatus/Wiring Supls/Rel Equip Whlsrs	10-19
423720	Plumbing & Htg Equip/Supls (Hydronics) Mrchnt Whls	10-19
423830	Industrial Machinery & Equipment Merchant Whlsrs	10-19
423840	Industrial Supplies Merchant Wholesalers	10-19
423930	Recyclable Material Merchant Wholesalers	10-19
423990	Other Miscellaneous Durable Goods Merchant Whlsrs	10-19
424720	Other Petroleum Merchant Wholesale	10-19
441120	Used Car Dealers	10-19
441222	Boat Dealers	10-19
444130	Hardware Stores	10-19
444190	Other Building Material Dealers	10-19
445120	Convenience Stores	10-19



NAICS Code	Description of Services	Number of Employees
445299	All Other Specialty Food Stores	10-19
446199	All Other Health & Personal Care Stores	10-19
448120	Women'S Clothing Stores	10-19
452990	All Other General Merchandise Stores	10-19
453110	Florists	10-19
453920	Art Dealers	10-19
482111	Line-Haul Railroads	10-19
484230	Specialized Freight (Exc Used Gds) Trckng Lng-Dist	10-19
485999	All Other Transit & Ground Passenger Trnsptrtn	10-19
488330	Navigational Services To Shipping	10-19
518210	Data Processing, Hosting & Related Services	10-19
524210	Insurance Agencies & Brokerages	10-19
531210	Offices Of Real Estate Agents & Brokers	10-19
532412	Construction, Mining/Forestry Mach/Equip Rntl/Lsng	10-19
541612	Human Resources Consulting Services	10-19
541618	Other Management Consulting Services	10-19
541690	Other Scientific & Technical Consulting Services	10-19
541870	Advertising Material Distribution Services	10-19
561520	Tour Operators	10-19
561622	Locksmiths	10-19
561710	Exterminating & Pest Control Services	10-19
561720	Janitorial Services	10-19
561730	Landscaping Services	10-19
611110	Elementary & Secondary Schools	10-19
611692	Automobile Driving Schools	10-19
621999	All Other Misc Ambulatory Health Care Services	10-19
624110	Child & Youth Services	10-19
712190	Nature Parks & Other Similar Institutions	10-19
713930	Marinas	10-19
722511	Full-Service Restaurants	10-19
722514	Cafeterias, Grill Buffets & Buffets	10-19
722515	Snack & Nonalcoholic Beverage Bars	10-19
811111	General Automotive Repair	10-19
811310	Coml/Ind Mach/Equip (Exc Auto/Electrnc) Rpr/Maint	10-19
811412	Appliance Repair & Maintenance	10-19
813110	Religious Organizations	10-19
813319	Other Social Advocacy Organizations	10-19
813910	Business Associations	10-19
541940	Veterinary Services	20-49
624190	Other Individual & Family Services	20-49
424720	Other Petroleum Merchant Wholesale	Did Not Respond
522110	Commercial Banking	Did Not Respond
999990	Unclassified Establishments	Did Not Respond

Source: InfoUSA 2016 Business Data, Regional Planning Commission



Table 40: Orleans Parish Employees

NAICS Code	Description of Services	Number of Employees
522130	Credit Unions	1-4
813410	Civil & Social Organizations	1-4
921120	Legislative Bodies	1-4
532111	Passenger Car Rental	5-9
522130	Credit Unions	10-19
522130	Credit Unions	10-19
561990	All Other Support Services	10-19
999990	Unclassified Establishments	10-19
621111	Offices of Physicians (Excluding Mental Health Specs)	20-49
621399	Offices of All Other Misc. Health Practitioners	20-49
532230	Video Tape & Disc Rental	Did Not Respond

Source: InfoUSA 2016 Business Data, Regional Planning Commission

8.3 Stakeholder Participation

8.3.1 Stakeholder List

The following businesses were identified as strategic stakeholders by Bobby Thomas, Executive Director of The Plaquemines Association of Business & Industry.

1. Daybook Industries, Inc - *Participated*
2. Numa C. Hero & Son - *Participated*
3. PHI, Inc -- *Participated*
4. Phillips 66 - *Participated*
5. Plaquemines Processing and Recovery, LLC - *Participated*
6. Southern Seaplane - *Participated*
7. Southland Rental Tools, Inc - *Participated*
8. Stolthaven - *Participated*
9. Venice Port Complex - *Participated*
10. Venture Global, LNG - *Participated*
11. Whitney Bank - *Participated*
12. Chevron
13. Moda Midstream, LLC
14. New Orleans Iron Works, LLC
15. Rene Cross Construction
16. State Representative Chris Leopold, District 105
17. US United Bulk Terminal



8.3.2 Interview Responses

Question	Stakeholder Response
Name and Organization	Daybrook Industries, Inc.
1. Do you reside in Plaquemines Parish?	No
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	
1b. If you do not reside in Plaquemines, what Parish do you live in?	
2. Is your business headquartered in Plaquemines Parish?	Yes
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	
2b. Is your business headquarters your only location?	Yes
2c. If you answered "No" above, how many other locations does your business have and where are they located?	
3. What type of Business is your firm engaged in?	Production of fish meal and fish oil.
4. Does your business manufacture any products?	Yes
4a. If your business manufactures products, what types of products are produced?	Fish meal and fish oil.
4b. If your business manufactures products, what industries do you sell to?	Dog food, cat food, feed meal, foreign entities.
4c. If your business manufactures products, where are your customers located?	14 countries and domestically.
4d. If your business manufactures products, how quickly do your customers need your product delivered?	Planning ahead, spread out over course of the year.
5. How do you typically ship your products?	By train, truck, and barge.
6. Why do you utilize that shipping mode?	It is the only viable method for bulk shipping.
7. What is your preferred method of delivering products to customers?	Barge and truck.
8. How do you think your delivery process could be improved?	Having rails to access southern Plaquemines Parish .
9. What types of products do you need for your business?	Small cargo; time-sensitive.
10. How do you typically receive shipments?	By truck.
11. Why do you receive shipments in this manner?	The most feasible option at this time.
12. How do you think receiving your firm's shipments could be improved?	Having rail to southern Plaquemines Parish.
13. Would your business use a nearby cargo airport to ship products to customers?	No
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	Our customers receive all products in bulk.

Question	Stakeholder Response
14. Would your business use a nearby cargo airport to receive products?	No
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	We don't receive products.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	No
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	It does not affect my business.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	No
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	More diversified business economy.
Additional Comments	No.

Question	Stakeholder Response
Name and Organization	Robert Hopkins / Whitney Bank / Plaquemines Association of Business and Industry
1. Do you reside in Plaquemines Parish?	Yes
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	Less than two miles.
1b. If you do not reside in Plaquemines, what Parish do you live in?	
2. Is your business headquartered in Plaquemines Parish?	No
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	Orleans Parish.
2b. Is your business headquarters your only location?	No
2c. If you answered "No" above, how many other locations does your business have and where are they located?	230; Southeastern United States.
3. What type of Business is your firm engaged in?	Banking.
4. Does your business manufacture any products?	No
4a. If your business manufactures products, what types of products are produced?	
4b. If your business manufactures products, what industries do you sell to?	
4c. If your business manufactures products, where are your customers located?	
4d. If your business manufactures products, how quickly do your customers need your product delivered?	
5. How do you typically ship your products?	By air (and truck delivery).
6. Why do you utilize that shipping mode?	Time sensitive.
7. What is your preferred method of delivering products to customers?	Fed Ex / UPS
8. How do you think your delivery process could be improved?	Less time.
9. What types of products do you need for your business?	Time sensitive.
10. How do you typically receive shipments?	By air (and truck delivery).



Question	Stakeholder Response
11. Why do you receive shipments in this manner?	Time sensitive documents.
12. How do you think receiving your firm's shipments could be improved?	Quicker turn around.
13. Would your business use a nearby cargo airport to ship products to customers?	No
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	Banking – no need.
14. Would your business use a nearby cargo airport to receive products?	No
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	Yes
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	Preferable. It would be a welcome addition to our economic diversification model, would foster job creation (both direct and indirect), and will enhance multi-modal development of the port of Plaquemines.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	None as long as the Walker Rd corridor and bridge is complete.
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	Revenue, jobs, real growth.
Additional Comments	This would be a huge win for Plaquemines Parish. We are in desperate need of diversification in regards to revenue.

Question	Stakeholder Response
Name and Organization	Southland Rental Tools, Inc.
1. Do you reside in Plaquemines Parish?	Yes
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	Less than 5 miles.
1b. If you do not reside in Plaquemines, what Parish do you live in?	
2. Is your business headquartered in Plaquemines Parish?	Yes
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	
2b. Is your business headquarters your only location?	No
2c. If you answered "No" above, how many other locations does your business have and where are they located?	1; Houma, LA.
3. What type of Business is your firm engaged in?	Oilfield service and equipment rental.
4. Does your business manufacture any products?	No
4a. If your business manufactures products, what types of products are produced?	
4b. If your business manufactures products, what industries do you sell to?	
4c. If your business manufactures products, where are your customers located?	
4d. If your business manufactures products, how quickly do your customers need your product delivered?	
5. How do you typically ship your products?	By air (and truck delivery); by truck.
6. Why do you utilize that shipping mode?	We provide equipment to international destinations for some customers.
7. What is your preferred method of delivering products to customers?	Truck.
8. How do you think your delivery process could be improved?	Easier clearance and closer shipping point for international delivery.
9. What types of products do you need for your business?	Small cargo; time sensitive.
10. How do you typically receive shipments?	By truck.



Question	Stakeholder Response
11. Why do you receive shipments in this manner?	Easiest method for our location.
12. How do you think receiving your firm's shipments could be improved?	Better delivery information from shipper.
13. Would your business use a nearby cargo airport to ship products to customers?	Yes
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	Closer shipping point.
14. Would your business use a nearby cargo airport to receive products?	Yes
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	Hope to reduce delivery times.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	Yes
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	Provide a necessary part of the overall shipment process to reduce shipment time and cost.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	Increased traffic.
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	Diversification of industry to the area; potential increase in shipping and receiving businesses; new jobs; growth potential for our port traffic.
Additional Comments	The air cargo would be a great addition to our parish's infrastructure and industry. The growth of our port would be greatly enhanced by adding this form of shipment and delivery method. The strategic location in regards to the central and western states is a key to growth of our parish and local economy.



Question	Stakeholder Response
Name and Organization	N.C. Hero & Son
1. Do you reside in Plaquemines Parish?	Yes
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	2 miles.
1b. If you do not reside in Plaquemines, what Parish do you live in?	
2. Is your business headquartered in Plaquemines Parish?	Yes
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	
2b. Is your business headquarters your only location?	Yes
2c. If you answered "No" above, how many other locations does your business have and where are they located?	
3. What type of Business is your firm engaged in?	Real estate development.
4. Does your business manufacture any products?	No
4a. If your business manufactures products, what types of products are produced?	
4b. If your business manufactures products, what industries do you sell to?	
4c. If your business manufactures products, where are your customers located?	
4d. If your business manufactures products, how quickly do your customers need your product delivered?	
5. How do you typically ship your products?	By truck.
6. Why do you utilize that shipping mode?	Convenience.
7. What is your preferred method of delivering products to customers?	No products to be delivered.
8. How do you think your delivery process could be improved?	
9. What types of products do you need for your business?	Time sensitive.
10. How do you typically receive shipments?	By truck.
11. Why do you receive shipments in this manner?	Timely.



Question	Stakeholder Response
12. How do you think receiving your firm's shipments could be improved?	Marginally.
13. Would your business use a nearby cargo airport to ship products to customers?	No
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	No products.
14. Would your business use a nearby cargo airport to receive products?	
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	No products.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	Yes
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	Could be a plus for the parish's economy.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	Noise and traffic.
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	Greater business opportunities.
Additional Comments	



Question	Stakeholder Response
Name and Organization	Stolthaven
1. Do you reside in Plaquemines Parish?	No
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	
1b. If you do not reside in Plaquemines, what Parish do you live in?	St. Tammany Parish.
2. Is your business headquartered in Plaquemines Parish?	No
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	Holland.
2b. Is your business headquarters your only location?	No
2c. If you answered "No" above, how many other locations does your business have and where are they located?	International.
3. What type of Business is your firm engaged in?	We are a liquid chemical storage terminal.
4. Does your business manufacture any products?	No
4a. If your business manufactures products, what types of products are produced?	
4b. If your business manufactures products, what industries do you sell to?	
4c. If your business manufactures products, where are your customers located?	
4d. If your business manufactures products, how quickly do your customers need your product delivered?	
5. How do you typically ship your products?	By train, truck, barge, and ship.
6. Why do you utilize that shipping mode?	Due to the weight and nature of the substance, these are the easiest modes of transportation.
7. What is your preferred method of delivering products to customers?	Train, truck, barge or ship – whichever is feasible at that time.
8. How do you think your delivery process could be improved?	The rail process could improve with unit trains.
9. What types of products do you need for your business?	Bulk, oils, and liquids.
10. How do you typically receive shipments?	By train, by truck, multi-modal, ship, barge, etc.
11. Why do you receive shipments in this manner?	This is the most convenient way given the nature of the material.

Question	Stakeholder Response
12. How do you think receiving your firm's shipments could be improved?	Cannot be; maybe rail could be improved.
13. Would your business use a nearby cargo airport to ship products to customers?	No
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	We work strictly with liquids and due to this air is not a feasible option. Potential limited use for consumables, but not for core businesses.
14. Would your business use a nearby cargo airport to receive products?	No
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	Other modes of transportation are better for the materials we handle.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	Neutral.
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	It does not concern our business.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	None.
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	None.
Additional Comments	

Question	Stakeholder Response
Name and Organization	George Pivach II Venice Port Complex
1. Do you reside in Plaquemines Parish?	No
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	
1b. If you do not reside in Plaquemines, what Parish do you live in?	North Shore.
2. Is your business headquartered in Plaquemines Parish?	Yes
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	
2b. Is your business headquarters your only location?	Yes
2c. If you answered "No" above, how many other locations does your business have and where are they located?	
3. What type of Business is your firm engaged in?	Venice Port Complex; we are a port.
4. Does your business manufacture any products?	No
4a. If your business manufactures products, what types of products are produced?	Our tenants perform these services: oil and gas in the Gulf, seafood/commercial fishing.
4b. If your business manufactures products, what industries do you sell to?	Tenants: service, construction, fabrication, exploration and production-related businesses.
4c. If your business manufactures products, where are your customers located?	A lot of shipping occurs to get parts and people into the Gulf/off-shore.
4d. If your business manufactures products, how quickly do your customers need your product delivered?	Time is money; as quickly as they can get a needed part the better.
5. How do you typically ship your products?	Tenants utilize ships, air, and/or truck. We lease to tenants and they mainly use trucks. Larger firms, such as Halliburton or Baker, will use air to have things flown into be delivered to Venice. Tenants have their own air strips 1-5 miles north of the port. PHI ERA Bristo use trucks to bring materials to the port. Either by boat or air to the Gulf, small parts go by air, large parts by boats.
6. Why do you utilize that shipping mode?	That is what is available and cost efficient.
7. What is your preferred method of delivering products to customers?	Port rarely ships, always tenants.
8. How do you think your delivery process could be improved?	Having something by air arrive into MSY can add an hour to the process. Plus the difference in distance to/from Belle Chase Naval Station makes it quicker to get to Venice and then Venice to off-shore. Time. Time is money. If you have a rig running for a 1-3 million a day



Question	Stakeholder Response
	and a rig goes down on account of a part, you need to get the part ASAP. Time is money.
9. What types of products do you need for your business?	Bulk, small cargo, time-sensitive; most of the things that are "value added," not bulk such as grain.
10. How do you typically receive shipments?	By air (and truck delivery) and by truck.
11. Why do you receive shipments in this manner?	That is what is available and cost efficient.
12. How do you think receiving your firm's shipments could be improved?	Improved highways and closer air destination. 10-20% is flown it, then it is trucked in. Always trucked in because nearest air spot is MSY. Southern Seaplane uses smaller planes and smaller parts and personnel.
13. Would your business use a nearby cargo airport to ship products to customers?	Yes; primarily to receive products.
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	Seafood dealers may use air to ship, otherwise primarily for receiving.
14. Would your business use a nearby cargo airport to receive products?	Yes
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	Cargo delivered to Belle Chase then to Venice as a destination spot.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	Yes
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	Absolutely [preferable]; would facilitate the movement of goods, and reduce the cost of the movement of goods.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	The con would be residential encroachment.
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	The development would be a huge benefit to assist the development of the river in Plaquemines Parish for the facility of the inward and outward movement of cargo.

Question	Stakeholder Response
<p>Additional Comments</p>	<p>The Port rarely ships things, this is regarding the use by the tenants of the Cargo Airport. Follow-up question: What volume of goods would be envisioned going through an air cargo facility in Plaquemines? We are not a tonnage type port, but rather ship value-added parts and equipment. Value-added items that are flown in for the port to boats or helicopters, cost an average of \$1 million/month (that is a guess, I haven't done a survey). What foreign countries are shipping to US ports, and where is it coming from and where is it going? For incoming materials: Coming from other areas in the US. For Export: Product will come in off the docks and trucked in to other areas.</p>

Question	Stakeholder Response
Name and Organization	PHI, Inc.
1. Do you reside in Plaquemines Parish?	No
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	
1b. If you do not reside in Plaquemines, what Parish do you live in?	Lafayette Parish.
2. Is your business headquartered in Plaquemines Parish?	No
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	Lafayette Parish.
2b. Is your business headquarters your only location?	No
2c. If you answered "No" above, how many other locations does your business have and where are they located?	Many other locations along the Gulf Coast—specific number unknown.
3. What type of Business is your firm engaged in?	We are engaged in helicopter navigation of people, cargo, equipment, etc. to support offshore work environment. We also have air medical locations in 40 states.
4. Does your business manufacture any products?	Yes
4a. If your business manufactures products, what types of products are produced?	Minor operation—we have specialized helicopter production that has been adopted by other helicopter firms so we produce and distribute some helicopter parts.
4b. If your business manufactures products, what industries do you sell to?	Other helicopter industries—again very limited operation.
4c. If your business manufactures products, where are your customers located?	
4d. If your business manufactures products, how quickly do your customers need your product delivered?	
5. How do you typically ship your products?	By air (and truck delivery).
6. Why do you utilize that shipping mode?	Easiest.
7. What is your preferred method of delivering products to customers?	Our customers have products shipped to us through LANOIA that we then deliver to them off-shore. Product is delivered through LANOIA or a different airport, driven to our facility, and then we deliver it by air to the off-shore oil rigs.
8. How do you think your delivery process could be improved?	Better shipping methods that are economically competitive.
9. What types of products do you need for your business?	Small cargo; air craft maintenance materials, fuel, oil hydraulics, building materials, chemicals etc.



Question	Stakeholder Response
10. How do you typically receive shipments?	By air (and truck delivery).
11. Why do you receive shipments in this manner?	Easiest way.
12. How do you think receiving your firm's shipments could be improved?	If there were an airport outside of the city so we could bypass traffic, etc. Stock for the company is held in Lafayette so when things break at the locations across the Gulf an order is put in during the day and then a company-owned truck is sent out to deliver parts, etc. at night.
13. Would your business use a nearby cargo airport to ship products to customers?	Yes
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	Its location past the city would make mobility and accessibility easier.
14. Would your business use a nearby cargo airport to receive products?	Yes
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	If it was economically competitive, the location is better for many of the bases outside of New Orleans city.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	Yes
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	There is a lot of business based past Belle Chasse that requires constant maintenance and therefore constant shipping of parts, etc. Bypassing the city would make delivery easier and quicker.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	Are the companies using the new airport the ones gaining the cost benefits?
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	A lot of industry south of Plaquemines Parish, etc. that could be served. The West Bank has a lot of industry and business that could be served and could potentially bypass the city. Pricing, etc. may be better.
Additional Comments	Works a 7-day shift on and off with Mike – recommended we call Mike as well because he has worked at this company longer and might have better insight.

Question	Stakeholder Response
Name and Organization	Plaquemines Processing and Reconvert
1. Do you reside in Plaquemines Parish?	Yes
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	4.5 miles
1b. If you do not reside in Plaquemines, what Parish do you live in?	
2. Is your business headquartered in Plaquemines Parish?	Yes
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	Owens two business – Riverside Metals also in Plaquemines.
2b. Is your business headquarters your only location?	Yes
2c. If you answered "No" above, how many other locations does your business have and where are they located?	
3. What type of Business is your firm engaged in?	Plaquemines Processing and Recovery is a wastewater treatment facility and Riverside Metals is a scrapyard recycling service.
4. Does your business manufacture any products?	No
4a. If your business manufactures products, what types of products are produced?	
4b. If your business manufactures products, what industries do you sell to?	
4c. If your business manufactures products, where are your customers located?	
4d. If your business manufactures products, how quickly do your customers need your product delivered?	
5. How do you typically ship your products?	By truck.
6. Why do you utilize that shipping mode?	It is the most feasible option.
7. What is your preferred method of delivering products to customers?	Truck.
8. How do you think your delivery process could be improved?	Cannot be greatly improved at this time.
9. What types of products do you need for your business?	Bulk; heavy equipment and fuel, different chemicals, etc.
10. How do you typically receive shipments?	By truck.
11. Why do you receive shipments in this manner?	It's the most convenient mode of shipment.
12. How do you think receiving your firm's shipments could be improved?	It can't be at this time.
13. Would your business use a nearby cargo airport to ship products to customers?	No



Question	Stakeholder Response
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	Given the nature of shipments, this is not the best way to move products around. Things being shipped are too heavy.
14. Would your business use a nearby cargo airport to receive products?	No
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	Does not apply to us.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	If it could be feasible and beneficial; I am all for it.
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	It is the most economically viable option then it is preferable.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	No concerns—if it's economically feasible, if it works it works.
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	If the port is built and the oil industry returns this could be utilized by them.
Additional Comments	

Question	Stakeholder Response
Name and Organization	Southern Seaplane
1. Do you reside in Plaquemines Parish?	No
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	
1b. If you do not reside in Plaquemines, what Parish do you live in?	Jefferson Parish.
2. Is your business headquartered in Plaquemines Parish?	Yes
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	
2b. Is your business headquarters your only location?	Yes
2c. If you answered "No" above, how many other locations does your business have and where are they located?	
3. What type of Business is your firm engaged in?	Private chartered planes; used to cater to the oil industry but now more chartered seaplanes.
4. Does your business manufacture any products?	No
4a. If your business manufactures products, what types of products are produced?	
4b. If your business manufactures products, what industries do you sell to?	
4c. If your business manufactures products, where are your customers located?	
4d. If your business manufactures products, how quickly do your customers need your product delivered?	
5. How do you typically ship your products?	N/A
6. Why do you utilize that shipping mode?	N/A
7. What is your preferred method of delivering products to customers?	Company owns seaplanes.
8. How do you think your delivery process could be improved?	N/A
9. What types of products do you need for your business?	Small cargo; time-sensitive.
10. How do you typically receive shipments?	By air (and truck delivery) and by truck; shipments go to MSY and then are delivered by truck.
11. Why do you receive shipments in this manner?	Timing is a priority and this is the most time efficient method.
12. How do you think receiving your firm's shipments could be improved?	The only way it's going to be improved is if they change landing strips; they are currently too small, but they are out of room at MSY and there is not enough ramp space.

Question	Stakeholder Response
13. Would your business use a nearby cargo airport to ship products to customers?	No
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	Depends on restrictions—scheduled only cargo in which case we would not use it.
14. Would your business use a nearby cargo airport to receive products?	No
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	Truck is a better option.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	Yes
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	If it allows for other companies to operate more smoothly, he is for it. If the restrictions allow for his planes to use it, it may be more beneficial than using his own.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	Landing facility is a hurdle; it does not allow for bigger planes to land at night which could be detrimental to time sensitive shipments. There are no cases laws of civilian using military base—so you would need to convince Congress.
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	
Additional Comments	Big proponent of this project and very knowledgeable on the subject. Does not feel is directly related to his business but it would be good for the community in the long run. Need infrastructure for ground transportation to make it easier. MSY location is near I-10 and therefore more useful. The military would be more open than the residents of the area.



Question	Stakeholder Response
Name and Organization	Will Fediw, Venture Global LNG
1. Do you reside in Plaquemines Parish?	No
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	
1b. If you do not reside in Plaquemines, what Parish do you live in?	Calcasieu Parish.
2. Is your business headquartered in Plaquemines Parish?	No
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	Washington, DC.
2b. Is your business headquarters your only location?	No
2c. If you answered "No" above, how many other locations does your business have and where are they located?	Houston, Chicago, Lake Charles.
3. What type of Business is your firm engaged in?	Liquid natural gas (LNG) export.
4. Does your business manufacture any products?	No
4a. If your business manufactures products, what types of products are produced?	
4b. If your business manufactures products, what industries do you sell to?	
4c. If your business manufactures products, where are your customers located?	
4d. If your business manufactures products, how quickly do your customers need your product delivered?	
5. How do you typically ship your products?	LNG Vessel/maritime.
6. Why do you utilize that shipping mode?	Industry-specific.
7. What is your preferred method of delivering products to customers?	See Q5.
8. How do you think your delivery process could be improved?	N/A
9. What types of products do you need for your business?	Natural gas.
10. How do you typically receive shipments?	Pipeline.
11. Why do you receive shipments in this manner?	Industry-specific.
12. How do you think receiving your firm's shipments could be improved?	N/A
13. Would your business use a nearby cargo airport to ship products to customers?	No



Question	Stakeholder Response
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	LNG not shipped via air.
14. Would your business use a nearby cargo airport to receive products?	Potentially.
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	Potential for support functions related to future plant.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	No opinion.
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	No opinion
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	N/A
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	N/A
Additional Comment	

Question	Stakeholder Response
Name and Organization	Shannon Vogt, Phillips 66 Alliance Refinery
1. Do you reside in Plaquemines Parish?	No
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	
1b. If you do not reside in Plaquemines, what Parish do you live in?	Jefferson Parish.
2. Is your business headquartered in Plaquemines Parish?	No
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	Houston, TX.
2b. Is your business headquarters your only location?	No
2c. If you answered "No" above, how many other locations does your business have and where are they located?	We are a global organization.
3. What type of Business is your firm engaged in?	Energy manufacturing and logistics.
4. Does your business manufacture any products?	Yes
4a. If your business manufactures products, what types of products are produced?	Petroleum products.
4b. If your business manufactures products, what industries do you sell to?	Multiple industries.
4c. If your business manufactures products, where are your customers located?	We sell to customers on a global scale.
4d. If your business manufactures products, how quickly do your customers need your product delivered?	
5. How do you typically ship your products?	Pipeline.
6. Why do you utilize that shipping mode?	Existing infrastructure.
7. What is your preferred method of delivering products to customers?	Pipeline.
8. How do you think your delivery process could be improved?	N/A
9. What types of products do you need for your business?	Feedstocks.
10. How do you typically receive shipments?	By truck; pipeline.
11. Why do you receive shipments in this manner?	Operational necessity.
12. How do you think receiving your firm's shipments could be improved?	Our shipments are predicated upon market availability.
13. Would your business use a nearby cargo airport to ship products to customers?	No



Question	Stakeholder Response
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	The nature of our products necessitates the existing method of shipment (pipeline).
14. Would your business use a nearby cargo airport to receive products?	No
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	The nature of our products necessitates the existing method of shipment.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	Yes
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	It has the potential to benefit the parish's overall economic environment.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	Geographic limitations and lack of infrastructure.
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	Increased economic activity.
Additional Comments	



Question	Stakeholder Response
Name and Organization	New Orleans Iron Works, L.L.C.
1. Do you reside in Plaquemines Parish?	Yes
1a. If you reside in Plaquemines Parish, how close to the Navy Base?	2 miles.
1b. If you do not reside in Plaquemines, what Parish do you live in?	
2. Is your business headquartered in Plaquemines Parish?	Yes
2a. If your business is not headquartered in Plaquemines Parish, where is its headquarters?	
2b. Is your business headquarters your only location?	Yes
2c. If you answered "No" above, how many other locations does your business have and where are they located?	
3. What type of Business is your firm engaged in?	Structural and miscellaneous steel fabrication.
4. Does your business manufacture any products?	Yes
4a. If your business manufactures products, what types of products are produced?	Structural and miscellaneous steel.
4b. If your business manufactures products, what industries do you sell to?	The building and construction industry.
4c. If your business manufactures products, where are your customers located?	The State of Louisiana.
4d. If your business manufactures products, how quickly do your customers need your product delivered?	Just in time delivery for building construction.
5. How do you typically ship your products?	By truck.
6. Why do you utilize that shipping mode?	Weight of product and ease of delivery.
7. What is your preferred method of delivering products to customers?	By truck.
8. How do you think your delivery process could be improved?	Replacement of the draw bridge on Hwy 23 with a fixed bridge.
9. What types of products do you need for your business?	Bulk, small cargo, and time-sensitive.
10. How do you typically receive shipments?	By air (and truck delivery), by truck, and by water.
11. Why do you receive shipments in this manner?	Size, weight and place of origin.
12. How do you think receiving your firm's shipments could be improved?	Local cargo airport.
13. Would your business use a nearby cargo airport to ship products to customers?	Some products could be shipped by air.
13a. Why would your business utilize or not utilize a nearby cargo airport to ship products to customers?	We would use it primarily for expedited delivery of component material.
14. Would your business use a nearby cargo airport to receive products?	Yes



Question	Stakeholder Response
14b. Why would your business utilize or not utilize a nearby cargo airport to receive products?	We would use it primarily for expedited receipt of component material.
15. Do you think that an air cargo airport in Plaquemines Parish is preferable?	Yes
15a. Why do you think an air cargo airport in Plaquemines Parish is or is not preferable?	This geographic area, west/south of the Mississippi River needs access to air freight.
16. What concerns would you have about an air cargo airport in Plaquemines Parish? Do you see any potential "cons" for this project?	No
17. What benefits do you think an air cargo airport would bring to Plaquemines Parish? Do you see any potential "pros" for this project?	Plaquemines Parish is growing and a cargo airport would only enhance its growth.
Additional Comments	



8.4 Meetings

8.4.1 September 20, 2016

8.4.1.1 Attendance



Regional Planning Commission

Jefferson, Orleans, Plaquemines,
St. Bernard, St. Tammany & Tangipahoa Parishes

Strategic Plan: Plaquemines Air Cargo Facility

Kick off meeting with

Plaquemines Parish/ NAS JRB New Orleans/ Plaquemines Port/ RPC/ TMG

September 20, 2016

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4731 Canal Street
New Orleans, LA 70119
www.tmg-consulting.net

To: Project Team

From: TMG Consulting

Date: September 20, 2016

RE: Strategic Plan: Plaquemines Air Cargo Facility
RPC Task A-3-17; FY-17 UPWP
Project Kick-Off Meeting

Document Requests:

1. Airbus application by Plaquemines Parish
2. General Aviation Airport Feasibility Study, both phases
3. Any comparable applications for joint use
4. Any additional applicable Navy or DOD circulars
5. Plaquemines Parish Comprehensive Master Plan
 - a. Any pending updates or amendments
6. Plaquemines Port Master Plan, relevant sections
7. Relevant environmental assessments, impact statements, mitigation plans

Information/Data Requests:

8. Development Site
 - a. Define the development site
 - i. GIS shapefile, survey or other description
 - ii. Photographs
 - b. GIS data and shapefiles for site and surrounding area
 - i. Base maps
 - ii. Parcel maps
 - iii. Land use and zoning maps
 - iv. Environmental maps
 - v. NAICS coded parcels
 - vi. Any additional associated maps
 - c. Environmental features of the site
 - i. Geographic locations (map) and designations
 - d. Traffic counts for surrounding roadways
 - e. Existing and available utilities to the site
 - f. Any planning materials previously generated, related to “through the fence” operations
 - g. Airport Layout Plan information

9. Nearby manufacturing/fabrication facilities
 - a. Contact information
 - b. Products
 - c. Market for products (who sold to)
 - d. Potential expansion plans, diversification
 - e. Quantity of products
 - f. Number of employees
 - g. Annual revenues
10. Plaquemines Port operations
 - a. Existing cargo
 - b. Projections for future cargo
 - c. Client/tenant lists
11. NAS JRB operations
 - a. Number of operations per year, month, week, day, and details on any seasonality
 - b. Time of day of operations
 - c. Available runways and airspace for GA or cargo operations
 - i. Calculations of maximum civilian operations the base can support
12. NAS JRB master plan
13. NAS JRB personnel
 - a. Number stationed at NAS JRB
 - b. Number living on-site
 - c. Number living elsewhere
 - d. Number of civilian employees
14. NAS JRB security considerations for GA or cargo operations
15. Approval process for private operators (GA or cargo) to utilize the NAS JRB
16. NAS JRB building regulations (height limits, setbacks, etc.)
17. Status of current projects
 - a. Louisiana Highway 23 relocation
 - i. Current status
 - ii. Major hurdles
 - iii. Anticipated completion
 - b. Railway relocation

- i. Current status
 - ii. Major hurdles
 - iii. Anticipated completion
 - c. Peters Road extension
 - i. Current status
 - ii. Major hurdles
 - iii. Anticipated completion
 - d. Bicycle or pedestrian route improvements
 - e. Transit service
 - f. Woodland airport, near West Point a la Hache
 - g. Any additional pending or proposed roadway, signal, or signage changes or improvements in the area
- 18. Existing airports in Plaquemines Parish
 - a. Contact information
 - b. Operations, statistics
- 19. Potential incentives for developers, GA operators, cargo operators
 - a. State, federal, local funding programs
 - b. Private funding potential
 - c. Land deals or swaps
- 20. Third-party developers
 - a. Details of any previous discussions or investigations
- 21. Stakeholders
 - a. Names and contact information
 - b. Introduction

8.4.2 September 22, 2016

8.4.2.1 *Attendance*



Strategic Plan : Plaquemines Air Cargo Facility

9/22/16

RPC Task A-3-17 ; FY-17 UPWP

Interim Meeting - Follow Up on Data Requests

Name	Company	Phone	Email
Suzanne Leckert	TMG	504-931-9201	suzanneleckert@tmgconsulting.net
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Lynn Dupont	RPC	504-483-8514	ldupont@norpc.org

8.4.3 October 6, 2016

8.4.3.1 *Attendance*





Regional Planning Commission

Jefferson, Orleans, Plaquemines,
St. Bernard, St. Tammany & Tangipahoa Parishes

Strategic Plan: Plaquemines Air Cargo Facility
Interim Data Gathering Meeting with
NAS JRB New Orleans/ TMG
October 6, 2016

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PWD NAS JRB NEW ORLEANS

MEETING DATE: 6 OCTOBER 2016

SUBJECT: Limit Use Airfield - PPG

MEETING AGENDA

1. **Introductions** *Bruce Phillips, Bruce Keller, Tom Gauthier, Sandy Sanders, Ross Limer, Ross Chapman, me, Stan Mathes, Alan Flexer (Attorney)*
2. **Purpose:** The purpose of this meeting is for an open dialogue and exchange of information related to the Parish's interest in submitting for Joint Civil Use / Limited Airfield Use at NAS JRB N.O.
3. **Conversation/ Talking Points:**
 - a. Navy POC's
 - b. How can Navy assist the Parish?
 - c. NAVFAC turnover of information we believe may be useful.
 - d. Discuss what we think may be considered for inclusion in the proposal letter.
 - e. OTHER:

Clarification: Conversations with the Navy representatives during this meeting are for informational purposes, and the Navy is not providing direction nor directing any party to incur any costs. There shall be no invoicing to the US Government/Navy related to any information shared. * Unsolicited.

Limited Use Airfield Discussion

10/6/2016

Provision of Basic Planning Information from NAS/JRB New Orleans
for 'Limited Use Runway Access' concept study/development:

1. Awareness of Civil Airplane Landing Permit -from NAVFAC PW - legal question looms, but not to be answered now
2. SECNAVINST 3770.2A Joint Military & Civil Use of Navy and Marine Corps Aviation Installations -we have
3. Copy (if available) of Santa Rosa County's Proposal to NAS Whiting Field -from CPLO - only 3 pgs.? 13 yrs. old
4. Current Runway Rating Information (aircraft types acceptable) -from Airfield Mgr/Air Ops
can't do Boeing 767 fully loaded
5. Current Airfield Operating Hours / Current Numbers of Annual Operations -from Airfield Mgr
7-23:00 M-F 10-18:00 Sat & Sun, closed on holidays
- (5a) Annual Flight Operations covered by 2006 NEPA EA -from CPLO, NAVFAC Environmental
-max of 28,000/yr. → they're @ 19,000/yr. (8,500 planes)
6. Available Nav-Aids /Navigation Systems -from Airfield Mgr/Air Ops
7. "CNO 5 x 8" (Base Population Stats /Numbers of Aircraft) -from PAO
600 fighter planes on base
8. (shareable) Airfield Entry Control Point Guidance -from SECURITY
- Hawaii example
9. UFC guidance for Taxiways/Ramps -from NAVFAC PW
Destin
- private
air port
next to
air base?
10. Likely NEPA processes (on base / off base) -from NAVFAC Environmental
- Supplemental EA will be necessary for the base
EA may be necessary for
off-site facility
11. Base Master Plan -from NAVFAC PW
12. Base Wetlands Map -from NAVFAC Environmental

Additional:

13. 2011 Joint Land Use Study -from CPLO
14. Overlay Map of AICUZ Noise Contours and Accident Potential Zones -from CPLO
15. Map of Imaginary Air Surfaces -from CPLO
16. Map of Existing Avigation Easements -from CPLO
17. 2016 Base Guide and Directory -from PAO

8.4.4 December 19, 2016

8.4.4.1 *Attendance*



Regional Planning Commission

Jefferson, Orleans, Plaquemines,
St. Bernard, St. Tammany & Tangipahoa Parishes



Plaquemines Sub-Area Analysis (RPC Task A-3.17; FY – 17 UPWP)

Status Update

December 19, 2016

Plaquemines Parish Government Bldg, 3rd Floor EOC Conference Room

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8.4.5 April 20, 2017

8.4.5.1 *Attendance*

8.4.5.2 *Presentation*



Regional Planning Commission

Jefferson, Orleans, Plaquemines,
St. Bernard, St. Tammany & Tangipahoa Parishes

Plaquemines Sub-Area Analysis

Final Status Meeting with RPC/Plaquemines Parish/Port of Plaquemines/NAS JRB/TMG

April 20, 2017

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Plaquemines Land Use and Transportation Sub-Area Analysis

Status Update
RPC Task A-3.17;FY-17 UPWP

Prepared by TMG Consulting



Agenda

1. Tasks Completed
2. Next Steps
3. Additional Steps
4. Revised Assumptions and Analysis
5. Discussion

Tasks Completed

- ▶ Kick-off meetings (2) held with RPC, Plaquemines Parish, Port, and NAS JRB
- ▶ Additional meeting (1) held at NAS JRB
- ▶ Status meeting held with RPC, Plaquemines Parish, Port and NAS JRB
- ▶ Data requests made by consultant, and data analyzed
- ▶ Site visit to NAS JRB and surroundings
- ▶ Economic and Demographic Assessment
- ▶ Comparable Developments and Competition – worldwide, national, and regional cargo trends studied
- ▶ Stakeholder Participation – responses received from 11 of 17
- ▶ Cargo projection models
- ▶ Preliminary mapping

Tasks Completed

- ▀ Client review of cargo projection scenarios
- ▀ Final responses from stakeholders
- ▀ Land use and traffic analyses
 - ▀ Traffic and mobility
 - ▀ Infrastructure and utilities
 - ▀ Land compatibility and regulatory
 - ▀ Build-out potential
 - ▀ Opinion of probable costs
 - ▀ Consistency with adopted plans
- ▀ Determine preferred scenario
- ▀ Transportation Goals, Objectives and Policies
- ▀ Final Maps
- ▀ Draft report for review by client team



Additional Steps

- ▶ RPC Draft review
 - ▶ Review comments/revisions from RPC
 - ▶ Meet and present draft/discuss
- ▶ Sec Nav Instruction 3770.2A Compliance
 - ▶ Narratives and references to study (TMG)
 - ▶ Review and edit by client team

Air Cargo Analysis: Changes Since Last Status Update

- ▶ Facility size doubled
 - ▶ Initial analysis
 - ▶ 2 million square feet of cargo facilities and ramp
 - ▶ Final study
 - ▶ 4 million square feet of cargo facilities and ramp
- ▶ Doubling of facility size results in significant increase in potential air cargo operations

Air Cargo Analysis: Is This Feasible?

- ▶ Possibly.
- ▶ Projections vary greatly based on model assumptions
 - ▶ Ability of Plaquemines to capture that growth
 - ▶ Lure a major operator or developer
 - ▶ How much new competition in the market?
- ▶ Projections vary: between 10 and 67 air operations daily
 - ▶ No impact on existing roadway network

Air Cargo Analysis: Study Findings

Summary of Model Projections for Plaquemines Total Air Cargo and Operations, 2020

Model	Plaquemines Air Cargo Facilities (sq. ft.)	Plaquemines Capture of Fair Share	Potential Air Cargo (lbs.)	Potential Average Daily Operations
Scenario 1 LOW	4,000,000	18%	137,917,533	10
Scenario 2 MID	4,000,000	100%	786,584,605	55
Scenario 3 HIGH				
Baseline Growth	4,000,000	100%	850,426,774	59
Low Growth	4,000,000	100%	917,443,783	64
Med Growth	4,000,000	100%	948,445,354	66
High Growth	4,000,000	100%	971,309,428	67

Source: TMG Consulting analysis and projections



Thank You

