DelDOT AERONAUTICS

R.A. Wiedemann & Associates, Inc.
AVIATION CONSULTANTS

Delaware Statewide Aviation

AIRPORT COMMUNITY VALUE

2023 Final Technical Report

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SECTION 1

Delaware Airport Community Value

1. DELAWARE AIRPORT COMMUNITY VALUE

1.1 Introduction

Airport community value (acv) was developed as an analytical metric for more effective aviation planning. ACV combines traditional economic impact study elements with the estimation of an airport's overall asset value in current dollars. ACV is a valuable tool in the assessment and planning of current and future facility investments, as well as being an accurate assessment of an airport's real value to the community it serves.

This process has been refined to work for airports of all sizes, service categories, and age of facilities. ACV measures land values, useful life (depreciation costs) of runways, taxiways, aprons, buildings, lighting, navigational aids, and other key airport features along with anticipated maintenance requirements. When combined with a relevant economic impact study, ACV facilitates the evaluation of an airport's current assets and future investments in relation to its overall economic output. This provides planning professionals, decision makers, and average citizens a more balanced understanding of the value and potential of each airport.

Simply put, ACV is a valuable tool for informing stakeholders and guiding recommendations that will help maximize investments in the airport system.

One example involved the development of a runway extension at Delaware Coastal Airport. ALOFT AeroArchitects is an anchor tenant of the Airport and serves as a "Completions Provider" for Boeing Business Jets. This designation involves the installation of large cabin Head of State, VIP and government aircraft interiors; systems engineering and integration; installation of auxiliary fuel systems and avionics components; inspections, overhauls, and maintenance. ALOFT directly employs 250 specialists earning well above average incomes with excellent benefits. These individuals serve to enhance the economic impact and quality of life in the surrounding community.

For some time, ALOFT serviced the early models of the Boeing 737 product line. As each subsequent generation added length and weight to the airframes, it became necessary to fly them in and out with minimal fuel, which in turn required a stop at a nearby airport with adequate facilities and runway length to permit filling the fuel tanks for delivery to clients around the world. With future 737 models, it was essential for ALOFT to be able to service potentially larger aircraft. If the Airport could not adapt, ALOFT would have to consider relocation.

It was determined that investment in extending the primary runway from 5,000 feet to 6,000 feet would improve business aviation access for ALOFT well into the foreseeable future. This would the ensure the retention of ALOFT by permitting access by larger jet aircraft, the addition of new product and service lines, and a need for increased staff. It was shown that capital investment would increase both short- and long-term economic activity. To date, the Airport has completed a 500-foot extension to bring the overall runway length to 5,500 feet, with plans to add another 500 feet in the future. The retention of ALOFT has helped Delaware Coastal Airport achieve the highest Return on Asset value in relation to Economic Output of any public-use airport in the State.

The following sections discuss the ACV methodology and results for Delaware system airports:

- Overview of the ACV Method for Delaware
- ACV Component Scoring
- ACV Results
- Future Capital Investment Ranking with ACV
- Return on Asset (ROA) Metrics
- Appendix A – ACV Airport Scoring

SECTION 2

Overview Of the Acv Method for Delaware

2. OVERVIEW OF THE ACV METHOD FOR DELAWARE

The acv method used in this study combines both the estimate of economic impact (total output) with estimates of the existing value of an airport. This method is analogous to examining both an income statement and a balance sheet when looking at the financial health of a business. These baseline values can then be subjected to a number of assessment factors called Economic Sustainability Factors (ESF) and Return on Asset (ROA) metrics in reaching a future estimate of an overall Airport Community Value.

Many airports and aviation systems rely on traditional methods of economic analysis. These methods may vary in the type of input-output model used, but most use the same measures of economic activity: jobs, income, total output, and tax revenue. Most studies seek to quantify the significance of the aviation transportation mode. In addition, these studies attempt to provide local stakeholders with evidence that airport expenditures are creating and sustaining jobs.

While traditional economic impact models are good and provide information to decision makers about the job creation and potential tax revenues associated with capital investments, they do not quantify the asset value or the return on that asset. The ACV process adds this dimension to the decision matrix for capital investments.

2.1 ACV Study Outputs

In traditional economic impact analyses, standard outputs include:

- *Direct Spending:* On-airport spending, including employment, operations, and capital projects as well as off-airport spending by air travelers for rental cars, hotels, restaurants, etc. by both airport service users and providers.
- *Induced Benefits:* Impacts created by successive rounds of spending in a local economy until the original direct or indirect impact is incrementally exported from the locale.
- *Jobs and Income:* Quantification of income generated by aviation and the number of jobs supported by the airport itself.
- *Total Output in Dollars:* The combined impacts of direct and induced spending.
- *Tax Revenues:* The local, state, and federal tax revenues can be determined from these studies.

For an economic impact assessment to be considered successful, it must address financial issues beyond the traditional economic impact study outputs described above. This could include impacts such as return on capital investment and opportunity costs associated with not investing in the airport system. With a baseline value such as this, it would be more productive to measure actual return on assets or changes in total value over the planning period. Thus, the ACV analysis includes a number of other outputs:

- *Existing Property and Facility Value:* The ACV analysis places an economic value on the existing property and facilities at an airport. While the economic impact assessment can be likened to an income statement of a financial report, the ACV includes the asset values, which correspond to the "balance sheet" portion of a financial statement.
- *Evaluation of Investments:* The ACV analysis can be used for the evaluation of capital investments. In this regard, the Return on Assets analysis can be formulated for both existing and future investments. These new metrics can be incorporated into an evaluation of capital investment decision-making.
- *Priority Ranking Process:* The ACV analysis provides decision makers with a priority ranking process of capital improvements, showing which ones contribute the most toward future economic sustainability. Unlike the FAA priority ranking process, which uses safety and capacity as the ranking factors, the ACV focuses on economic viability factors for the airports.
- *Information Comparable to Other Enterprises:* In many cases, economic impacts for airports are described in terms of jobs, income, and output where there are no comparable enterprises on which to gauge the significance of the impact. For example, what is the economic impact of a general aviation airport relative to a 100,000 square foot, big-box store? Does a GA airport generate as much economic gain as a school, public library, or road project, all of which are competing projects for municipal funding? The ACV analysis includes a comparable enterprise analysis.

2.2 ACV Components

As mentioned, both traditional and new methods of economic impact analysis are used in the ACV analysis process. The process adds the existing value components and establishes a base year economic sustainability factor (ESF) score for each airport. For the future, the operational economic activity plus any capital investment is multiplied by the change in future ESF to yield a better estimate of the value of future airport investments. Thus, there can be "before" and "after" ACV sets showing existing and future projected values. Specific ACV measures include the following factors:

Existing Value Components

- Economic Impacts from Activity
  - Jobs
  - Total Economic Output
- Airport Property and Facility Value
  - Replacement Value
  - Current Costs of Facilities Based on Useful Life Estimates

The existing value components to be compiled or estimated include the use of existing economic impact assessment numbers. A current statewide economic impact study quantifies these numbers. In addition to the economic impact, an estimate of the current value of the system airport will be developed, using a replacement cost basis or replacement value minus useful life estimates of existing facilities.

Estimating replacement value is done by multiplying unit costs of construction times the existing

quantities of facilities to derive an approximate infrastructure investment total. In addition, land values were added to the facility development costs, yielding a total replacement value. Not included in this mix are the potential difficulties of actually replacing the airport due to environmental and land use constraints. Thus, the estimated replacement value will be conservative in nature, as it assumes environmental and land acquisition hurdles have already been overcome.

A second important descriptor in the ACV involves the depreciated value of the existing airport facilities. Rather than use actual depreciation schedules which vary according to accounting methods, a simplified method was used which employed "useful life" estimates of facilities at system airports. In this regard, the approximate age of the various facilities was estimated using Pavement Management studies, Google Earth historical photos, and consultant information. Pavement Management System indices were used for the runway and taxiway useful life values. The condition of pavement was equated to age in the following way:

- Excellent = 0-5 years
- Good = 6-10 years
- Fair = 11-20 years
- Poor = Over 20 years

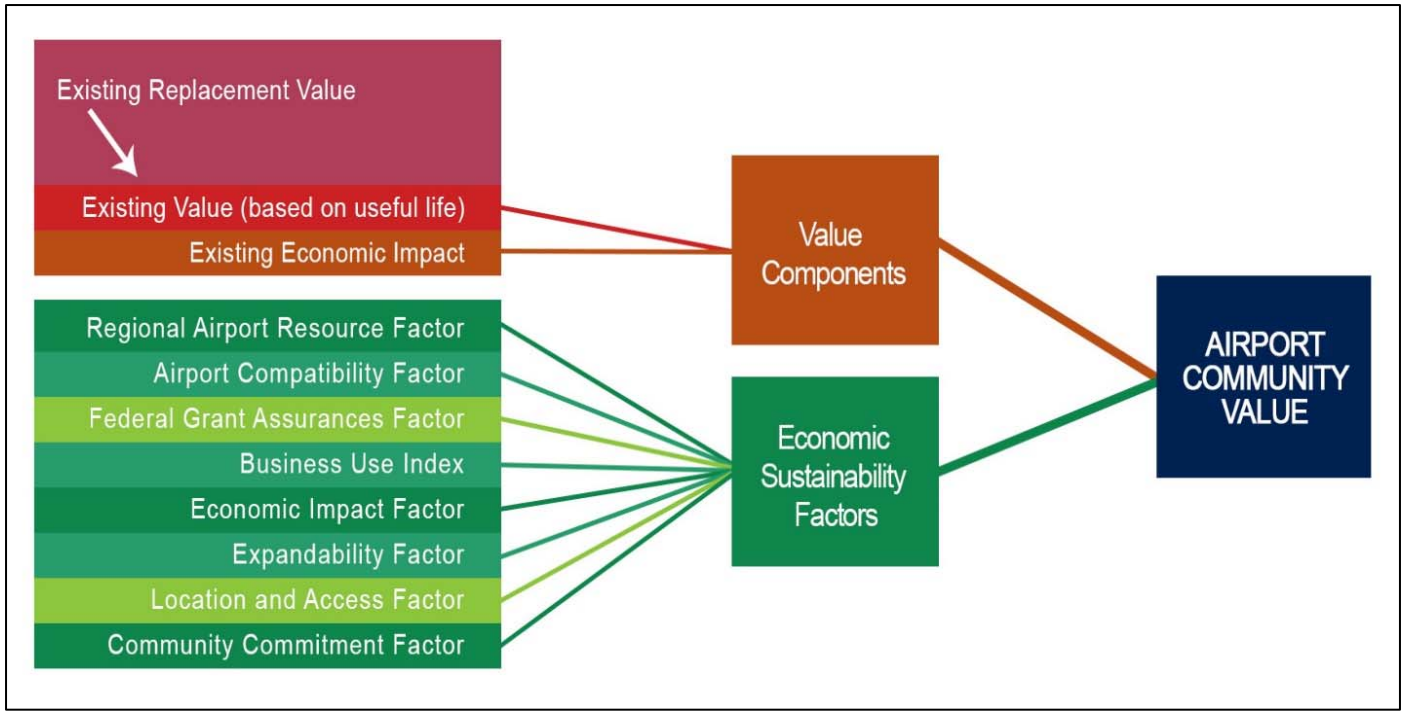
Depreciated values used a straight-line method. For example, pavement life was estimated to be 20 years. The useful life of buildings was estimated at 40 years. To approximate existing airport value, the useful life fraction (e.g., 10-year-old pavement has a fraction of 10/20 or 0.5) is then multiplied times the replacement value costs at system airports. (In the event an airport has a military grade concrete runway or masonry buildings whose service lives exceed those outlined here, informed adjustments will be made to the reduction percentages as determined by an experienced inspector.)

Economic Sustainability Factors (Sustainability Assessment)

- Regional Airport Resource Factor
  - Geographic Coverage
  - Population Coverage
- Airport Compatibility Factor
  - Land Use Compatibility
  - Height Hazard Zoning
- Location/Access
- Business Use Index
  - Multi-engine Propeller
  - Business Jet
  - Air Traffic Control Tower
- Expandability Factor
  - Airside, Landside
  - Airport Capacity
- Community Commitment Factor
  - Plans on File
- Federal Grant Assurances
  - Grant Assurances Less Than 5 Years Old
  - Grant Assurances More Than 5 Years Old
- Economic Impact
  - Return on Assets
  - Economic Impact/Aircraft Operation Index

A community can, at any time, change its future ACV by undertaking actions impacting the Economic Sustainability Factors (ESF). For example, by lengthening a runway, an airport may increase its accommodation of business aviation, raising its Business Use Index (BUI). If the community is willing to commit dollars to capital improvements, this can increase the Community Commitment Factor (CCF) and so on. Taken together, these proactive measures can increase the viability of the local airport and expand its economic sustainability. Local and regional planners as well as decision-makers can use this tool to measure their airports' ACV and to estimate return on assets from their future capital contributions. Figure 1 presents a graphic illustration of the ACV estimation process.

Figure 1 – Airport Community Value Modeling Process



Source: R.A. Wiedemann & Associates, Inc.

SECTION 3

ACV Component Scoring

3. ACV COMPONENT SCORING

The existing values for economic impact and airport replacement costs offer a baseline estimate of overall economic value. However, this value is a static snapshot of a constantly moving economic flow. The eight primary factors that modify these values are discussed below along with numeric scores for each factor.

3.1 Airport Replacement Value and Existing Value Estimation

Key indicators of airport value involve their physical assets and their infrastructure. By including the airport replacement value and the existing value estimation, a larger picture concerning the actual worth of the airport to the community is presented. Also, by introducing asset valuation, a mechanism for better measuring return on assets can be developed. Table 1 presents the worksheet input needed to develop estimates of replacement values and existing airport values, which incorporate useful life reductions. As shown in Table 1, inputs needed for Airport Replacement Value estimates include the following:

- Total airport acreage and the most recent estimate of price per acre.
- Runway and Taxiway area in square feet (length times width) and cost per square foot.
- Apron area (in square feet) taken from recent Pavement Management Study or from aerial photography, along with cost per square foot.
- Conventional Hangar square footage. Costs are estimated automatically at $150 per square foot but these cost factors can be changed.
- Number of T-hangar units. Costs are estimated automatically at $100,000 per unit but can be changed.
- Fuel system replacement value, based on the size of the facility. Three options are possible: $500,000, $1,000,000, and $2,000,000. Some fuel facilities cost more or less than these amounts, but on average, these replacement values are practical.
- The instrument approach capability places a value on those facilities or services, with non-precision valued at $500,000 and precision valued at $1,500,000.
- An air traffic control tower is valued at $10 million.
- Non-hangar buildings' square footage. Costs are estimated automatically at $230 per square foot, but the values can be changed.

Existing Airport Value with Useful Life Reductions are estimated for each airport using the replacement value estimates combined with knowledge of the age of the various facilities. Inputs to the process include:

- For pavements, a 20-year life is assumed.
- For hangars and non-hangar buildings, a 40-year life is assumed.
- Other facilities were not reduced in value, since their replacement costs are assumed to increase at the same rate as their depreciation. Land values were not depreciated either.

Table 1 – Airport Community Value Worksheet					
Airport Replacement Value					
Airport Name					
	Description	Units		Cost/ Number	Amount
Land Value	Acres from 5010		Cost/Acre		$ -
Pavement					
Runway	Length x Width		Cost/s.f.		$ -
Taxiway	1=Full, 2=Partial, 3=None				$ -
Apron Area	Actual Area from Aerial		Cost/s.f.		$ -
Hangars					
Conventional Hangars	Total Square Footage		Cost/s.f.		$ -
T-Hangars	Total Units		Cost/Unit		$ -
Fuel System	Small, Medium, Large				
					$ -
Instrument Approaches	0=None, 1=Nonprecision				
	2=Precision				$ -
Air Traffic Control Tower	0=No, 1=Yes				$ -
Non-Hangar Buildings	Total Square Feet		Cost/s.f.		$ -
Total Replacement Value					$ -
Existing Airport Value with Useful Life Reductions					
	Age of Existing Facilities				
Land Value	Input Total Appreciation/Depreciation Percentage				$ -
Pavement	Square Feet 0-5 years old	SF 6-10 yrs	SF 11-20 yrs	SF > 20 yrs	
Runway					$ -
Taxiway	N/A				$ -
Apron Area					$ -
Hangars	SF for C-hangars, # of Units for Ts				
Conventional Hangars					$ -
T-Hangars					$ -
Fuel System	N/A				$ -
Instrument Approaches	N/A				$ -
Air Traffic Control Tower	N/A				$ -
Non-Hangar Buildings					$ -
Existing Facility Value					0

The worksheet in Table 1 produces both the Replacement Value and the Existing Airport Value.

The ACV metric adjusted the existing/depreciated value of facilities by reducing the replacement value of each facility asset based on knowledge of the age of the various system airports. The ACV metric includes the following assumptions:

- Paved Area Value Reductions: The replacement cost of runway, taxiway, and apron areas were reduced by applying the following percentages based on estimated facility age:

Age	Value Reduction
Good (0-5 years)	-12.5%
Fair (6-10 years)	-37.5%
Poor (11-20 years)	-75.0%
Over 20 years	-100.0%

For the ACV metric, each airport's runway pavement condition was available for NPIAS airports. This data was used as the baseline for all pavement condition/age at these airports, while visual inspection of pavement condition was used to assess Chorman and Chandelle airports' useful life.

- Hangars and Non-Hangar Building Value Reductions: Using a 40-year life as a reasonable benchmark, the following percentages were applied to estimated replacement values for each facility:

Age	Value Reduction
0-5 years	-6.25%.
6-10 years	-18.75%
11-20 years	-37.50%
Over 20 years	-67.00%

- Other Facilities: Other facilities such as fuel systems, air traffic control towers, and instrument approaches were not reduced in value, since their replacement costs are assumed to increase at the same rate as their depreciation.

- Land Value: Land values in the State of Delaware vary widely and depend upon a range of market variables. Such variables include, among others: location, zoning, utilities and infrastructure, and tract size. For the purpose of the ACV metric, both the existing and replacement land values are the same since land is not assumed to depreciate in value.

To estimate land value, the airports were examined on a case-by-case basis. To accurately determine the average price per acre, real estate listings for land within one mile of each airport are compared to determine a reasonable estimate. In some cases, this did not provide enough data to make a firm determination, so real estate listings from land within a 5-mile radius were examined.

3.2 Existing ESF Scoring System

The existing values for economic impact and airport replacement costs discussed above offer a baseline estimate of facility values. However, these values are a snapshot of a constantly moving economic target. The ESFs discussed in this report address the market impacts of these values and offer insight into certain strategies that individual airport sponsors might consider to improve their airport values and economic impacts. Specific inputs to the ESFs are shown in Table 2 and include the following:

Regional Airport Resource Factors

Airports are regional resources that serve areas beyond their immediate sponsors' political boundaries. As entry points to the nation's airspace

system, airports can be considered "on-ramps" to the national air transportation system. This is true for existing aviation activity as well as Advanced Air Mobility technology of the future. The ACV places a value on the on-going operations or expansion of each airport as a resource worthy of protection. Although it can be argued that all airports contribute to their local communities, this value differs on a case-by-case basis. For Regional Airport Resource Factors, the rating system included:

- Airport Role Classification: The classification of airport type (jet-capable, single-engine, etc.) indicates the service level available at that location. For the purposes of this study, points were awarded based upon an airport's designated role in the FAA's National Plan of Integrated Airport Systems (NPIAS). Points were awarded as follows:

Airport Role	Score
National	4
Regional	3
Local	2
Basic	1

- Service Area Population: In airport system planning, use of a 20-mile radius or 30-minute drive time areas is typical to determine the service area population. For this reason, the population of the county each airport resides in was deemed a reasonable estimate for its service area population, with the exception of Summit Airport. For Summit Airport, an average of New Castle and Kent County population was used. Chorman Airport utilized an average of Kent and Sussex County populations. These figures were gathered from the most recent estimates of the local population. Scoring of this factor used the largest population base (New Castle County) as the denominator, with each of the other airport service area populations as the numerator, times the airport role point score. Thus, a fraction was used with the airport role score to determine the overall regional airport resource factor score.

Airport Compatibility Factor

Airports that are most compatible with their surrounding land uses have a better chance of thriving than those which are at odds with surrounding neighborhoods. In addition, airport sponsors that have taken steps to protect the airspace and approaches through height hazard zoning for their airports increase the viability of their airports over the long term. Scoring this factor involves the following primary components:

- Land Use Compatibility: The compatibility of land uses around each airport was assessed by first categorizing the surrounding areas into quadrants. Then, types of uses occurring on land in each quadrant were observed. One point was awarded for each quadrant where abutting land uses were compatible. A total of 4 points is possible. Land uses considered compatible are, in descending order: natural/undeveloped areas, agricultural lands, and low-rise/low density industrial and commercial areas. Residential uses that are part of agricultural

lands where the primary purpose is for agricultural use are considered agricultural in nature. Higher density residential land is considered non-compatible.

- Land Use/Height Hazard Zoning Controls around Airports: The existence of protective zoning and/or land use controls around system airports was assessed via online research. Specifically, independent searches were conducted to identify airports whose sponsor and/or other surrounding community has adopted zoning or other land use controls to protect the airport and surrounding property owners from noise issues and/or encroachment by incompatible land uses. One point was awarded for airports where such controls were identified and zero points were awarded otherwise.

Location/Access Factor

When speaking of location or access, the factor being measured is convenience. The primary reason for using air transportation is to save travel time. In this regard, access to an airport by ground is critical. The relative ease by which an airport can be accessed increases its value to the local community and to the regional or state system of airports. For this criterion a gradient score was used, where 1 point was assigned to a facility located on a local road, 2 points were assigned to a major/regional arterial, and 3 and 4 points were assigned to facilities adjacent to limited-access State and Interstate highways, respectively. A three-mile radius of the airport was used to assess proximity to surface access facilities. In this manner, facilities with ground access via higher capacity roadways were awarded a higher score.

Business Use Index

Similar to geographic coverage, airports were scored relative to their accommodation of business aviation. National forecasts by the FAA show that business aviation has a much brighter future than most other general aviation use. In addition, business aviation accounts for a proportionately higher share of airport revenues than smaller general aviation aircraft. This is due to the use of larger, more sophisticated aircraft, which consume more fuel and employ more people than smaller general aviation aircraft.

Therefore, if an airport is able to accommodate business jets, it should receive a higher score in this category than airports with short, low-load limit pavements. In addition, the number of jets or multi-engine propeller aircraft based at the airport should be used as a factor in the rating process. Scoring includes the following primary criteria:

- Airport Role Classification: The ability to accommodate business aviation can be measured by airport classification. The same classification used under the Regional Airport Resource Factor was included here. The airport role classification score is based on a point scale of 1 to 4, with 4 being the most accommodating to corporate and business aviation.
- Based Business Aircraft and Itinerant Operations: The number of business type aircraft (jet and multi-engine) currently based at the airport as well as the number of itinerant

operations were used as direct inputs into the model. Based upon national fuel consumption statistics, business jets consume more than eight times the amount of fuel than multi-engine propeller and turboprop aircraft consume. The model then assigns 2 points to the highest number of these measures for each category. Fractional percentages of these point scores were used for the other system airports, based upon their comparative percentage of the highest business activity.

- Airspace Environment: The airspace environment for an airport indicates whether or not the facility is located in a complex environment or in need of air traffic control. Most general aviation airports do not have air traffic control towers because they have not reached activity levels that trigger eligibility for these facilities and services. It can be inferred that the more complex an airport's airspace environment, the higher its overall use and in particular, its business use. Many fractional jet operators prefer airports with air traffic control towers (ATCT) to those which do not have such services. ATCTs are placed at airports that have a sufficient number of aircraft operations to be viable for the long term. For this ESF, a simple yes/no point scoring was given for the presence of an ATCT, with 2 points for "yes" and zero points for "no." Because Wilmington Airport is the only civil facility in Delaware with an ATCT, it received 2 points where other facilities did not. In this regard, the Control Tower at Wilmington is an important service that keeps many of the larger corporate tenants based at the airport.

Expandability Factor

The ability of an airport to expand is a significant factor in its future value to the community it serves. If an airport at capacity cannot expand, there is limited return on additional capital investment in the facility, since the population of aircraft it serves will not be significantly altered. For this factor, two primary criteria were used as a gauge. The first involved the ability to expand within existing airport property. Both airside and landside were included in this scoring. The second gauge involved the degree to which an airport is at its capacity. That is, vacancies will impact the need to expand. Thus, if an airport is filled to capacity, the need for expansion is much more critical than an airport that is only 75 percent filled. Thus, the second factor (as a percentage) is multiplied by the first factor (expandability) to determine the score of this ESF. This measure was gathered from discussions with airport management at each airport. Scoring items included the following:

- On-airport Expandability: The ability of each airport to expand both airside and landside was assessed in a similar manner to the land use compatibility assessment. Airports with expansion capability were scored higher than those that had none. For example, if an airport could expand its airside in all runway end directions it was awarded 100 percent expandability, which was valued at 4 points. Similarly, facilities that could only expand in one direction were awarded 50 percent expandability, which was valued at 2 points. For landside expansion scoring, each 5 acres of developable landside area was scored with 1 point, up to a total of 4 points (for 20 acres or more).
- Airport Capacity: Degree to which capacity has been reached was scored primarily on the basis of hangar vacancies. Discussions with airport managers helped to determine a rough percentage of capacity reached. For example, an airport with 80 percent hangar occupancy would multiply the On-airport Expandability score by 80 percent to calculate its ESF for this factor.

Community Commitment Factor

The level of community commitment to a local airport is an important factor in assessing its existing and future viability. Communities that have developed current master plans and that have airport capital improvement programs on file with funding agencies can be considered proactive in this area. Criteria used in ranking community commitment included an inventory of current plans on file with funding agencies such as airport master plans, airport capital improvement programs, airport zoning plans, and airport business plans. An airport was awarded 1 point for each plan in place (for a total of 4 possible points).

Grant Assurances

Airports which accept federal grants for improvement projects must sign grant assurances that obligate the airport sponsor for a minimum of 20 years. If land is purchased with the federal grant, then the obligation has no limit in duration. These obligations require the airport to remain an airport, to keep revenues from being used for non-airport purposes, to require sponsors to take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. There are 39 grant assurances overall. These grant assurances are some of the greatest deterrents to the closure of publicly owned airports. Therefore, the ESF was scored using an 8-point scale, which is higher than most of the other factors.

Because of the 20-year (or more) grant assurance duration, airports that have not taken grants in five or more years were scored lower than those with more recent grant assurance obligations. A total of 8 points was scored to airports with recent federal grants, 4 points for grants of more than five-years old, and zero points for no grant assurances. This scoring was applied to both NPIAS airports with federal grant histories and to privately owned, public-use airports in the system that are now eligible for State grants (with associated 10-year grant assurances).

Economic Impacts

One of the most important measures of the value of an airport to its community is its economic impact. Thus, economic impacts should be included in the ESF scoring system. From the inputs shown in Table 2, several economic impact metrics are listed, including two that are used in this scoring system:

- Total Economic Output
- Existing Airport Asset Value

From these measures, along with a knowledge of the number of itinerant operations, two ESF metrics can be estimated:

- Return on Assets (ROA): For purposes of this analysis, airport assets are defined as the existing value of the facility, as determined in a previous portion of the analysis. ROA can be measured using operating revenues or economic output, both of which are acceptable variables for ratio comparison. For this

analysis, economic output was used as the variable to be measured because of its uniform development and timeframe among the airports. Thus, airports can be compared that have different asset values because the metric that is scored is an index of performance – dollars of economic impact per dollar of asset value. In scoring, the point distribution would use 2 points as the highest ratio, with the lowest ratio estimated as a percentage of that.

- Economic Impact Per Aircraft Operation: Another index of value involves the economic impact of an airport per aircraft operation. For this metric, the total economic output of an airport is divided by the number of aircraft operations. In scoring, the point distribution would use 2 points as the highest ratio, with the lowest ratio estimated as a percentage of that.

Table 2 presents a matrix format of the scoring system for the Economic Sustainability Factors. A table such as this was completed for each Delaware airport using the inputs described above. It should be noted that all the factors except BUI and Grant Assurances have the potential of scoring between zero and 4 points in the matrix. Because of its overall importance in aviation's future, the BUI scoring ranges from 1 to 10, and the Grant Assurance scoring ranges from 1 to 8, essentially giving those factors higher weights than the other evaluation factors. Once the scores have been added, they are multiplied by a factor of 2.34 to normalize the ESF scale to 100.

Table 2 shows the input areas for the ACV worksheet. The top portion allows existing IMPLAN values from the 2023 study to be entered or new values from a separate analysis to be used. No other input is needed since the Airport Replacement Value and the Existing Airport Value with Useful Life Reductions is automatically input from a different worksheet (described in Table 1). The subtotal of the existing ACV is simply the existing total economic output combined with the existing airport value with useful life reductions. This dollar amount is accompanied by an ESF. The ESFs are useful for all future actions and investments in the airport system. The ESF calculation requires inputs in the blue boxes. These input totals are then interpreted by the program and automatically adjusted and entered into the far-right column. At the bottom of the table, the scores are totaled for each airport and normalized to 100.

Prior to filling out the worksheet, information must be gathered on the highest number of based jets, multi-engine aircraft, hangar occupancy, and itinerant operations at any system airport, the highest population service area, and all the square footage for pavements and buildings. Other factors such as federal grants, land use, location, etc. can be found on-line or through discussions with the airport managers.

Table 2 - Airport Community Value Scoring Matrix

Existing ACV Worksheet

Airport Name		Input Value Direct	Indirect	Total
Existing IMPLAN Values	Derived from existing 2023 study or new effort			
Airport Jobs	Show Direct, Indirect, and Total			0
Total Output	Show Direct, Indirect, and Total			$0
Tax Contribution	Derived from existing 2023 study or new effort			$0
Existing Airport Replacement Value	See Input Sheet for Details			$0
Existing Airport Value w/Depreciation	See Input Sheet for Details			$0
Subtotal Existing ACV				$0
Economic Sustainability Factors				
		Input Value		**Factor Scor**
Regional Airport Resource Factor	Maximum Point Total=4			-
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)			
Average Population in Service Area	Use County Data for Each System Airport			
Airport Compatibility Factor	Maximum Point Total=5			-
Land Use Compatibility	1 Point for Each Quadrant with Little or No Residential			
Height Hazard Zoning	Yes/No 1 Point or Zero Points			
Location/Access	Maximum Point Total=4			-
Surface Access Infrastructure	1=Local Road, 2=Regional Arterial			
	3=Limited Access State Road 4=Interstate			
Business Use Index	Maximum Point Total=10			-
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)			
Business Aviation Activity	# Based Business Jets + Multi-engine*			
	# Itinerant Operations			
Air Traffic Control Tower	Air Traffic Control Tower Yes/No			
Expandability Factor	Maximum Point Total=4			-
On-Airport Expandability	Airside 1 to 4 using 4 pts. for 100%, 2 pts for 50%, etc.			
	Landside 1 to 4 using 1 pt. for each 5 acres			
Airport Capacity	Hangar Occupancy Rate (to be multiplied by Expandability)			
Community Commitment Factor	Maximum Point Total=4			-
Current Plans on File	1 pt. each - ACIP, Master Plan, Airport Zoning, Business Plan			
Federal Grant Assurances	Maximum Point Total=8			0
Grant Assurance in Place <5yrs, Old	8 pts.			
Grant Assurance Over 5 yrs. Old	4 pts.			
No Grant Assurance	0 pts.			
Economic Impacts	Maximum Point Total=4			0
Return on Assets	Economic Impact/Existing Asset Value. 2 pts. Distributed			
Impact Per Aircraft Operation	Index w/2 pts. for Highest Index Number, Distributed			
Total ESF Scoring	**Maximum Point Total=43**		**2.34**	**0**

SECTION 4

ACV Results

4. ACV RESULTS

This section presents the results of the acv estimation process and then applies those values to potential airport improvement projects to help determine a rank order of priority, based upon economic sustainability factors.

4.3 Existing ACV Results

The ACV metric described in the preceding sections was calculated for nine airports considered in this Plan. The product of the exercise is an estimate of the following three values for each airport and for the system as a whole:

- The Economic Impact Value
- The Existing (Depreciated) Airport Asset Value
- The Airport Facility Replacement Value

The methodology for performing the assessment of the ACV metric and the results of the task are described in the following sections.

To complete the ACV metric and to estimate the value of each airport to its community and the airport system in total, more than 60 discrete data values for each airport were researched and assembled into a database. This data corresponds to those described in preceding sections. A summary of the scoring inputs can be viewed at the end of this report in Appendix A. Additionally, extensive quantitative data and qualitative scoring was used to estimate existing and replacement airport facility values and assign an overall score using ESFs. In total, the assessment of the airport system permitted by the ACV metric offers a comprehensive measure of airport value to communities in a way that can be compared on the system-wide level.

Table 3 below presents the summary results of the ACV input and scoring exercise for all nine airports. Existing and replacement values were calculated by the ACV matrix.

Table 3 - ACV Scores Plus Existing and Replacement Values

Airport Name	Total ACV	ESF Score	Total Output	Existing Value	Replacement Value
New Castle Airport	$926,001,921	92.7	$391,195,200	$522,017,221	$993,622,000
Delaware Coastal	$323,161,939	68.1	$165,925,600	$151,867,739	$224,960,000
Summit Airport	$116,199,390	35.8	$48,183,600	$66,293,500	$107,465,330
Delaware Airpark	$ 36,018,494	59.5	$4,775,800	$ 31,050,594	$37,366,000
Chorman Airport	$14,162,924	45.4	$2,906,400	$11,140,924	$20,472,250
Chandelle Estates	$5,470,901	24.8	$2,096,800	$3,281,801	$6,464,925
Laurel Airport	$4,507,531	36.4	$188,300	$4,311,031	$6,398,200
Jenkins Airport	$2,216,080	22.1	$115,200	$2,095,980	$3,306,000
Smyrna Airport	$1,177,665	33.9	$115,200	$1,057,565	$1,617,200
Totals	**$1,428,916,845**	**-----**	**$615,502,100**	**$793,116,355**	**$1,401,671,905**

Total ACV represents the added value of the economic activity at an airport plus the existing asset value of that facility. As mentioned earlier, this snapshot of the overall value of an airport includes both the "income statement" and the "balance sheet" components of economic value. Interpreting the results in the Table, New Castle Airport has the highest ACV of any civilian airport in the State. Given the size and economic importance of ILG to the region, this result was expected. The ACV rank order includes New Castle, Delaware Coastal, Summit, Delaware Airpark, Chorman, Chandelle, Laurel, Jenkins, and Smyrna.

Economic Sustainability Factors scores range from 92.7 for New Castle Airport to Jenkins Airport, whose score was the lowest at 22.1. Interestingly, Delaware Airpark had a lower ACV than Summit ($36 million versus $116.2 million primarily because of land values), but because of Delaware Airpark's federal grant assurances and recent purchase of the Diakos property at the Runway 27 end, it scored higher with respect to ESF.

These scores can be interpreted to mean that the sponsors of Summit Airport have an opportunity to improve their facility and increase the future value of their investments by extending their runway to accommodate more business aircraft and by accepting State grants for eligible projects. New Castle Airport, on the other hand, is somewhat land-locked and cannot expand. New Castle's high ESF indicates that it is already highly economically sustainable. Because it is near the top end of the scoring, there are fewer investment leveraging options available to the airport's sponsors because of the dense development around the airport.

4.4 Improvement Project Ranking

One of the purposes of the ACV modeling system is to provide good information concerning investment decisions in public infrastructure such as the local airport. Key to estimating return on assets is information about the assets involved, their potential for increasing the return, or the risks associated with negative community actions that may threaten the viability of the airport. The ESF provides analysts with this information and capability.

When considering how improvement projects relate to economic sustainability, the scoring system in Section 2 of this report provides helpful guidance. Essentially, any project that provides economic viability for an airport contributes to the economic sustainability of that airport. However, there are two aspects of economic sustainability that are considered in the ranking of improvement projects:

- Potential to Increase Airport Operational Income
- Potential Increase in Airport Asset Value

Clearly, some projects must occur for an airport to keep operating – pavement overlays, safety improvements, etc. But some projects will benefit operational income and keep an airport financially viable. Table 4 presents a listing of airport projects and their corresponding weights in terms of economic sustainability. In these cases, items that would increase revenues were given priority over those that simply increased the airport asset value.

As shown, Hangar Construction and Fuel System development are the top two improvement items, primarily because they serve to increase revenues at airports. The remaining items serve to increase an airport's asset value and ability to operate efficiently. Runway paving or extensions permit larger business and corporate aircraft types to use an airport, thereby increasing the business use index. Other paving is important to maintain load bearing capacity and operational capability. General aviation terminal buildings are important, as are obstruction removal and Navaids. Finally, access roads and auto parking round out the list of improvements.

Table 4 - Improvement Item Ranking

Improvement Item	Weighting Factor
Hangar Construction	1.0
Fuel System	1.0
Land Purchase	0.95
Pave/Light Runway	0.90
Runway Pavement Overlay	0.90
Pave/Light Taxiway	0.85
Taxiway Overlay	0.85
Aircraft Apron Paving	0.80
Apron Overlay	0.80
Terminal Building	0.75
Obstruction Removal	0.70
Navaids	0.65
Access Road	0.60
Pave Auto Parking	0.55

If these weighting factors are multiplied by the ESF score of each Delaware airport, a rank order of projects can be developed. This ranking could reveal the importance of each project from an economic sustainability standpoint. This method can be applied to the list of capital improvements for airports in Delaware. It is then possible to develop a ranking by project and airport of these proposed improvements. This ranking would give decision makers an alternate listing of priority to the FAA's priority ranking, because this ranking is by economic sustainability rather than airport safety and capacity. It is recommended that such a ranking be included in the evaluation of State grant program funding.

4.5 Summary

The existing ACV metric as described in this section is presented as a measure of airport facility values, both in terms of existing/depreciated asset value and the level of investment required to replace any of the airports in Delaware. Economic Sustainability factors offer an additional measure of qualitative value for individual airports. The results of the ACV metrics can be used by airport sponsors to direct their capital investments toward the highest possible return.

No airport is forced to stay in its current ACV ranking. By implementing any of the actions listed as factors in the process, the ACV and associated ESF can be altered. With changing economic conditions, the ACV is a fluid number, moving with supply and demand, investment capital, and policy changes designed to protect local airports.

SECTION 5

Return On Assets Using ACV

5. RETURN ON ASSETS USING ACV

The acv methodology permits decision-makers to estimate a return on assets, which can be incrementally impacted by proactive measures described in the ESF section. Key to estimating ROA is information about the assets involved, their potential for increasing the return, or the risks associated with negative community actions that may threaten the viability of the airport. The ESF provides analysts with this information and capability.

One measure of ROA is an airport's ability to use its assets to generate operating revenues. Assets include cash and cash equivalents, as well as physical items of tangible value, such as buildings, equipment, pavement, and land owned by the airport. For the most part, the ROA measurement should be used historically for the industry being analyzed. If peer airport comparisons are made, it is imperative that the airports being reviewed are similar in size and aircraft activity. One accepted measure of ROA utilizes operating revenues as a variable for ratio comparison. Limited experience from other studies of general aviation airports around the nation have shown a range ROA for operating revenue of between 0.2 percent and 2.2 percent. The low numbers result from the very large asset value of an airport, which is the denominator, while the operating revenues function as the numerator in the ratio. Two-thirds of the airports in this study are privately owned, which limits access to operating revenues. Fortunately, there is another acceptable method of measuring ROA.

A second measure of ROA involves the use of economic output in the ratio. As such, Delaware airports are producing economic output ranging from 4.4 percent to 109.3 percent of their current asset value each year, averaging 77.6 percent (see Table 5). Large capital investments do require participation by the sponsors, and then, only on a 10 percent matching basis in most cases. Thus, even the capital investments are leveraged 9 to 1.

Table 5 presents the ROA for each system airport, as measured by economic output.

Table 5 – Delaware Airports Return on Assets

Airport Name	Existing Value	Total Output	ROA-Economic Output
New Castle Airport	$522,017,221	$391,195,200	74.9%
Delaware Coastal	$151,867,739	$165,925,600	109.3%
Summit Airport	$66,293,500	$48,183,600	72.7%
Delaware Airpark	$31,050,594	$4,775,800	15.4%

Table 5 – Delaware Airports Return on Assets

Airport Name	Existing Value	Total Output	ROA-Economic Output
Chorman Airport	$11,140,924	$2,906,400	26.1%
Chandelle Estates	$3,281,801	$2,096,800	63.9%
Laurel Airport	$4,311,031	$188,300	4.4%
Jenkins Airport	$2,095,980	$115,200	5.5%
Smyrna Airport	$1,057,565	$115,200	10.9%
Totals	**$793,116,355**	**$615,502,100**	**77.6%**

For Delaware airports, Delaware Coastal has the highest ROA on economic output at 109.3 percent, with Laurel Airport having the lowest with 4.4 percent. On average, the Delaware airport system generates an ROA on economic output of just below 78 percent. This ROA must be compared to some other industry to have context and be meaningful. As such, Section 6 presents a comparison of ROA and economic output involving a Walmart store.

SECTION 6

Local Economic Context

6. LOCAL ECONOMIC CONTEXT

In providing a context for the ROA and economic output numbers shown in the previous section, a question may be asked: What is the comparison of the results for a local airport to a local business? That is, can the magnitude of the economic impacts of airports be better understood as they are compared to known local businesses? For this study, a well-known local business was selected to use as a benchmark comparison to the economic impacts of airports.

One brand known worldwide is Walmart, a global retail company with stores in thousands of cities across the U.S. According to Walmart's 2023 annual report, the company had net sales of $420.6 billion in the U.S. It employs 1.6 million people in the U.S. at more than 4,600 stores:[2]

Walmart Store Type	Building Square Feet
Discount Stores	105,000
Super Centers	178,000
Neighborhood Markets	42,000

The average number of full and part-time employees for a Super Center is about 350. The average sales per store in 2023 was $91.4 million.

To examine the impacts of an individual store, the analysis in Table 6 is presented. Walmart's average sales of $91.4 million translate into gross profit margin (or output) of $30.02 million per store. Using this output, IMPLAN calculated 326 full-time employees per store earning an average of $39,915 per year (labor income divided by 326).

Table 6 – Average Economic Impact of Walmart Store

Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	326	$13,011,811	$16,702,038	$30,018,988
Indirect Effect	124	$3,429,883	$7,706,652	$13,609,263
Total Effect	450	$16,441,694	$24,408,690	$43,628,251
Multiplier	1.38	1.26	1.46	1.45

Since a large proportion of Walmart's sales are on goods made outside the United States, there are limited ripple effects on the producer's purchase price. Almost all the ripple effect impact will come from wages and salaries spent by employees. In fact, all the top 10 sectors affected by this spending are non-manufacturing – reflecting the origin of the primary impacts (wages and salaries). In total, the average Walmart store has a total local impact of 450 jobs and $43.6 million in total output.

Table 7 shows the employment and total output for each of the public use airports in Delaware. Overall, three of the nine airports in this report (New Castle, Delaware Coastal, and Summit Airport) have more output than the average Walmart store. Two of those

[2] Source: Walmart Corporate Website: https://corporate.walmart.com/askwalmart/how-many-people-work-at-walmart

airports - New Castle and Delaware Coastal – also have greater employment numbers. New Castle has almost five times the number of employees, while Delaware Coastal has almost 1.4 times the jobs as an average Walmart store.

Table 7 - Economic Impact of Delaware Airports Comparison

Airport Name	Employment	Output
New Castle Airport	2,203	$391,195,200
Delaware Coastal	617	$165,925,600
Summit Airport	225	$48,183,600
Delaware Airpark	38	$4,775,800
Chorman Airport	30	$2,906,400
Chandelle Airport	23	$2,096,800
Laurel Airport	3	$188,300
Jenkins Airport	1	$115,200
Smyrna Airport	1	$115,200
Totals Statewide	3,142	$615,502,100
Totals Statewide	**3,142**	**$615,502,100**

APPENDIX A

Delaware Airport Community Value

APPENDIX A: DELAWARE AIRPORT COMMUNITY VALUE

New Castle Airport Scoring Matrix

Table A-1 - Airport Community Value Scoring Matrix

Existing ACV Worksheet

Airport Name	**New Castle Airport**			
Existing IMPLAN Values	Derived from existing 2023 study or new effort			**Input Value**
Airport Jobs	Show Direct, Indirect, and Total			2,203
Total Output	Show Direct, Indirect, and Total			$391,195,200
Tax Contribution	Derived from existing 2023 study or new effort			$12,789,500
Existing Airport Replacement Value	See Input Sheet for Details			$993,622,000
Existing Airport Value w/Depreciation	See Input Sheet for Details			$522,017,221
Subtotal Existing ACV				$926,001,921
Economic Sustainability Factors				
		Input Value		**Factor Score**
Regional Airport Resource Factor	Maximum Point Total=4			4
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	4		
Average Population in Service Area	Use County Data for Each System Airport	575,494		
Airport Compatibility Factor	Maximum Point Total=5			3
Land Use Compatibility	1 Point for Each Quadrant with Little or No Residential	2		
Height Hazard Zoning	Yes/No 1 Point or Zero Points	1		
Location/Access	Maximum Point Total=4			4
Surface Access Infrastructure	1=Local Road, 2=Regional Arterial			
	3=Limited Access State Road 4=Interstate	4		
Business Use Index	Maximum Point Total=10			10.35
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	4		
Business Aviation Activity	# Based Business Jets + Multi-engine*	100		
	# Itinerant Operations	17,514		
Air Traffic Control Tower	Air Traffic Control Tower Yes/No (2 or 0)	2		
Expandability Factor	Maximum Point Total=4			2
On-Airport Expandability	Airside 1 to 4 using 4 pts. for 100%, 2 pts for 50%, etc.	1		
	Landside 1 to 4 using 1 pt. for each 5 acres	3		
Airport Capacity	Hangar Occupancy Rate (to be multiplied by Expandability)	1		
Community Commitment Factor	Maximum Point Total=4			4
Current Plans on File	1 pt. each - ACIP, Master Plan, Airport Zoning, Business Plan	4		
Federal Grant Assurances	Maximum Point Total=8			8
Grant Assurance in Place <5yrs, Old	8 pts.	8		
Grant Assurance Over 5 yrs. Old	4 pts.			
No Grant Assurance	0 pts.			
Economic Impacts	Maximum Point Total=4			4.14
Return on Assets	Economic Impact/Existing Asset Value. 2 pts. Distributed	0.774		
Impact Per Aircraft Operation	Index w/2 pts. for Highest Index Number, Distributed	7,952		
Total ESF Scoring	**Maximum Point Total=43**		**2.34**	**92.7**
** Input in Blue Boxes				

Table A-1 Continued

Airport Replacement Value	New Castle Airport				
	Description	Units		Cost/Number	Amount
Land Value	Acres from 5010	1,250	Cost/Acre	$ 250,000.00	$ 312,500,000
Pavement					
Runway	Length x Width	2,953,900	Cost/sq.ft.	$ 30.00	$ 88,617,000
Taxiway	Length x Width	3,061,100		$ 30.00	$ 91,833,000
Apron Area	Estimated	3,690,700	Cost/sq.ft.	$ 20.00	$ 73,814,000
Hangars					
Conventional Hangars	Total Square Footage	989,850	Cost/sq.ft.	$ 250	$ 247,462,500
T-Hangars	Total Units	64	Cost/Unit	$ 150,000	$ 9,600,000
Fuel System	Small, Medium, Large			2	$ 4,000,000
Navigational Aids	0=None, 1=Nonprecision				
	2=Precision			2	$ 1,500,000
Internal Roadways	Total Linear Feet	37,800	Cost/l.f.	150	$ 5,670,000
Auto Parking Lots	Total Square Footage	2,263,500	Cost/sq.ft.	10	$ 22,635,000
Perimeter Fence	Total Linear Feet	29,000	Cost/l.f.	50	$ 1,450,000
Air Traffic Control Tower	0=No, 1=Yes			1	$ 10,000,000
Non-Hangar Buildings	Estimated	355,830	Cost/sq.ft.	$ 350	$ 124,540,500
Total Replacement Value					$ 993,622,000
Depreciated/Existing Airport Value					
	Age of Existing Facilities				
Land Value	N/A				$ 312,500,000
Pavement	Square Feet 0-5 years old	SF 6-10 yrs	SF 11-20 yrs	SF Over 20 yrs	
Runway	924,239		2,029,661		$ 39,483,731
Taxiway			1,280,700	1,780,400	$ 9,605,250
Apron Areas		180,300	1,114,500	2,395,900	$ 7,826,250
Auto Parking Lots		459,300		1,804,200	$ 2,870,625
Hangars					
Conventional Hangars			80,710	909,145	$ 87,615,400
T-Hangars				64	$ 3,168,000
Fuel System					$ 4,000,000
Instrument Approaches					$ 1,500,000
Internal Roadways				37,800	$ 1,871,100
Linear Fence				29,000	$ 478,500
Air Traffic Control Tower					$ 10,000,000
Non-Hangar Buildings				355,830	$ 41,098,365
Existing Facility Value					$ 522,017,221

Summit Airport Scoring Matrix

Table A-1 - Airport Community Value Scoring Matrix				
Existing ACV Worksheet				
Airport Name	**Summit Airport**			
Existing IMPLAN Values	Derived from existing 2023 study or new effort			**Input Value**
Airport Jobs	Show Direct, Indirect, and Total			225
Total Output	Show Direct, Indirect, and Total			$48,183,600
Tax Contribution	Derived from existing 2023 study or new effort			$1,722,200
Existing Airport Replacement Value	See Input Sheet for Details			$107,465,330
Existing Airport Value w/Depreciation	See Input Sheet for Details			$66,293,590
Subtotal Existing ACV				$116,199,390
Economic Sustainability Factors				
		Input Value		**Factor Score**
Regional Airport Resource Factor	Maximum Point Total=4			1
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	2		
Average Population in Service Area	Use County Data for Each System Airport	381,220		
Airport Compatibility Factor	Maximum Point Total=5			3
Land Use Compatibility	1 Point for Each Quadrant with Little or No Residential	2		
Height Hazard Zoning	Yes/No 1 Point or Zero Points	1		
Location/Access	Maximum Point Total=4			2
Surface Access Infrastructure	1=Local Road, 2=Regional Arterial			
	3=Limited Access State Road 4=Interstate	2		
Business Use Index	Maximum Point Total=10			2.7
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	2		
Business Aviation Activity	# Based Business Jets + Multi-engine*	-		
	# Itinerant Operations	10,200		
Air Traffic Control Tower	Air Traffic Control Tower Yes/No (2 or 0)	-		
Expandability Factor	Maximum Point Total=4			3
On-Airport Expandability	Airside 1 to 4 using 4 pts. for 100%, 2 pts for 50%, etc.	1		
	Landside 1 to 4 using 1 pt. for each 5 acres	4		
Airport Capacity	Hangar Occupancy Rate (to be multiplied by Expandability)	1		
Community Commitment Factor	Maximum Point Total=4			2
Current Plans on File	1 pt. each - ACIP, Master Plan, Airport Zoning, Business Plan	2		
Federal Grant Assurances	Maximum Point Total=8			0
Grant Assurance in Place <5yrs, Old	8 pts.	-		
Grant Assurance Over 5 yrs. Old	4 pts.			
No Grant Assurance	0 pts.			
Economic Impacts	Maximum Point Total=4			1.7
Return on Assets	Economic Impact/Existing Asset Value. 2 pts. Distributed	0.753		
Impact Per Aircraft Operation	Index w/2 pts. for Highest Index Number, Distributed	2,086		
Total ESF Scoring	**Maximum Point Total=43**		**2.34**	**35.8**
** Input in Blue Boxes				

Table A-1 Continued

Airport Replacement Value	Summit Airport				
	Description	Units		Cost/Number	Amount
Land Value	Acres from 5010	209	Cost/Acre	$ 150,000.00	$ 31,350,000
Pavement					
Runway	Length x Width	294,520	Cost/sq.ft.	$ 15.00	$ 4,417,800
Taxiway	Length x Width	255,330		$ 15.00	$ 3,829,950
Apron Area	Estimated	747,700	Cost/sq.ft.	$ 10.00	$ 7,477,000
Hangars					
Conventional Hangars	Total Square Footage	173,922	Cost/sq.ft.	$ 200	$ 34,784,400
T-Hangars	Total Units	51	Cost/Unit	$ 100,000	$ 5,100,000
Fuel System	0=None, 1=12,000 gals,				
	2=More than 12,000 gals.			2	$ 1,000,000
Navigational Aids	0=None, 1=Nonprecision				
	2=Precision			1	$ 500,000
Internal Roadways	Total Linear Feet	4,500	Cost/l.f.	150	$ 675,000
Auto Parking Lots	Total Square Footage	88,960	Cost/sq.ft.	8	$ 711,680
Perimeter Fence	Total Linear Feet	22,000	Cost/l.f.	50	$ 1,100,000
Air Traffic Control Tower	0=No, 1=Yes			0	$ -
Non-Hangar Buildings	Estimated	55,065	Cost/sq.ft.	$ 300	$ 16,519,500
Total Replacement Value					$ 107,465,330

Table 3 - Depreciated/Existing Airport Value					
	Age of Existing Facilities				
Land Value	N/A				$ 31,350,000
Pavement	Square Feet 0-5 years old	SF 6-10 yrs	SF 11-20 yrs	SF Over 20 yrs	
Runway			294,520		$ 1,104,450
Taxiway			255,330		$ 957,488
Apron Area		436,500	232,200	79,000	$ 3,308,625
Auto Parking Lots		88,960			$ 444,800
Hangars					
Conventional Hangars			71,640	102,300	$ 15,706,800
T-Hangars				51	$ 1,683,000
Fuel System					$ 1,000,000
Instrument Approaches					$ 500,000
Internal Roadways			3,400	1,100	$ 373,200
Linear Fence			22,000		$ 687,500
Air Traffic Control Tower					$ -
Non-Hangar Buildings			42,105	12,960	$ 9,177,728
Existing Facility Value					$ 66,293,590

Smyrna Airport Scoring Matrix

Table A-1 - Airport Community Value Scoring Matrix Existing ACV Worksheet				
Airport Name	**Smyrna Airport**			
Existing IMPLAN Values	Derived from existing 2023 study or new effort			**Input Value**
Airport Jobs	Show Direct, Indirect, and Total			1
Total Output	Show Direct, Indirect, and Total			$115,200
Tax Contribution	Derived from existing 2023 study or new effort			$4,900
Existing Airport Replacement Value	See Input Sheet for Details			$1,617,200
Existing Airport Value w/Depreciation	See Input Sheet for Details			$1,057,565
Subtotal Existing ACV				$1,177,665
Economic Sustainability Factors				
		Input Value		**Factor Score**
Regional Airport Resource Factor	Maximum Point Total=4			0
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	1		
Average Population in Service Area	Use County Data for Each System Airport	186,946		
Airport Compatibility Factor	Maximum Point Total=5			3
Land Use Compatibility	1 Point for Each Quadrant with Little or No Residential	2		
Height Hazard Zoning	Yes/No 1 Point or Zero Points	1		
Location/Access	Maximum Point Total=4			2
Surface Access Infrastructure	1=Local Road, 2=Regional Arterial			
	3=Limited Access State Road 4=Interstate	2		
Business Use Index	Maximum Point Total=10			1.02
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	1		
Business Aviation Activity	# Based Business Jets + Multi-engine*	-		
	# Itinerant Operations	310		
Air Traffic Control Tower	Air Traffic Control Tower Yes/No (2 or 0)	-		
Expandability Factor	Maximum Point Total=4			6
On-Airport Expandability	Airside 1 to 4 using 4 pts. for 100%, 2 pts for 50%, etc.	2		
	Landside 1 to 4 using 1 pt. for each 5 acres	1		
Airport Capacity	Hangar Occupancy Rate (to be multiplied by Expandability)	4		
Community Commitment Factor	Maximum Point Total=4			2
Current Plans on File	1 pt. each - ACIP, Master Plan, Airport Zoning, Business Plan	2		
Federal Grant Assurances	Maximum Point Total=8			0
Grant Assurance in Place <5yrs, Old	8 pts.	-		
Grant Assurance Over 5 yrs. Old	4 pts.			
No Grant Assurance	0 pts.			
Economic Impacts	Maximum Point Total=4			0.134
Return on Assets	Economic Impact/Existing Asset Value. 2 pts. Distributed	0.109		
Impact Per Aircraft Operation	Index w/2 pts. for Highest Index Number, Distributed	5		
Total ESF Scoring	**Maximum Point Total=43**		**2.3**	**33.9**
** Input in Blue Boxes				

Table A-1 Continued

Airport Replacement Value	Smyrna Airport				
	Description	Units		Cost/Number	Amount
Land Value	Acres from 5010	20	Cost/Acre	$ 30,000.00	$ 600,000
Pavement					
Runway	Length x Width		Cost/sq.ft.	$ 15.00	$ -
Taxiway	Length x Width			$ 15.00	$ -
Apron Area	Estimated	1,510	Cost/sq.ft.	$ 10.00	$ 15,100
Hangars					
Conventional Hangars	Total Square Footage	1,720	Cost/sq.ft.	$ 150	$ 258,000
T-Hangars	Total Units	4	Cost/Unit	$ 100,000	$ 400,000
Fuel System	0=None, 1=12,000 gals,				
	2=More than 12,000 gals.			1	$ 200,000
Navigational Aids	0=None, 1=Nonprecision				
	2=Precision			0	
Internal Roadways	Total Linear Feet	150	Cost/l.f.	150	$ 22,500
Auto Parking Lots	Total Square Footage	2,700	Cost/sq.ft.	8	$ 21,600
Perimeter Fence	Total Linear Feet	-	Cost/l.f.	30	$ -
Air Traffic Control Tower	0=No, 1=Yes			0	$ -
Non-Hangar Buildings	Estimated	500	Cost/sq.ft.	$ 200	$ 100,000
Total Replacement Value					$ 1,617,200

Table 3 - Depreciated/Existing Airport Value					
	Age of Existing Facilities				
Land Value	N/A				$ 600,000
Pavement	Square Feet 0-5 years old	SF 6-10 yrs	SF 11-20 yrs	SF Over 20 yrs	
Runway					$ -
Taxiway					$ -
Apron Area				1,510	$ -
Auto Parking Lots				2,700	$ -
Hangars					
Conventional Hangars				1,720	$ 85,140
T-Hangars				4	$ 132,000
Fuel System					$ 200,000
Instrument Approaches					$ -
Internal Roadways				150	$ 7,425
Linear Fence					$ -
Air Traffic Control Tower					$ -
Non-Hangar Buildings				500	$ 33,000
Existing Facility Value					$ 1,057,565

Chandelle Estates Scoring Matrix

Table A-1 - Airport Community Value Scoring Matrix Existing ACV Worksheet				
Airport Name	**Chandelle Estates**			
Existing IMPLAN Values	Derived from existing 2023 study or new effort			**Input Value**
Airport Jobs	Show Direct, Indirect, and Total			23
Total Output	Show Direct, Indirect, and Total			$2,096,800
Tax Contribution	Derived from existing 2023 study or new effort			$92,300
Existing Airport Replacement Value	See Input Sheet for Details			$6,464,925
Existing Airport Value w/Depreciation	See Input Sheet for Details			$3,281,801
Subtotal Existing ACV				$5,470,901
Economic Sustainability Factors				
		Input Value		**Factor Score**
Regional Airport Resource Factor	Maximum Point Total=4			1
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	2		
Average Population in Service Area	Use County Data for Each System Airport	186,946		
Airport Compatibility Factor	Maximum Point Total=5			2
Land Use Compatibility	1 Point for Each Quadrant with Little or No Residential	2		
Height Hazard Zoning	Yes/No 1 Point or Zero Points	-		
Location/Access	Maximum Point Total=4			2
Surface Access Infrastructure	1=Local Road, 2=Regional Arterial			
	3=Limited Access State Road 4=Interstate	3		
Business Use Index	Maximum Point Total=10			1.10
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	1		
Business Aviation Activity	# Based Business Jets + Multi-engine*	2		
	# Itinerant Operations	530		
Air Traffic Control Tower	Air Traffic Control Tower Yes/No (2 or 0)	-		
Expandability Factor	Maximum Point Total=4			3
On-Airport Expandability	Airside 1 to 4 using 4 pts. for 100%, 2 pts for 50%, etc.	2		
	Landside 1 to 4 using 1 pt. for each 5 acres	1		
Airport Capacity	Hangar Occupancy Rate (to be multiplied by Expandability)	2		
Community Commitment Factor	Maximum Point Total=4			1
Current Plans on File	1 pt. each - ACIP, Master Plan, Airport Zoning, Business Plan	1		
Federal Grant Assurances	Maximum Point Total=8			0
Grant Assurance in Place <5yrs, Old	8 pts.	-		
Grant Assurance Over 5 yrs. Old	4 pts.			
No Grant Assurance	0 pts.			
Economic Impacts	Maximum Point Total=4			0.810
Return on Assets	Economic Impact/Existing Asset Value. 2 pts. Distributed	0.639		
Impact Per Aircraft Operation	Index w/2 pts. for Highest Index Number, Distributed	91		
Total ESF Scoring	**Maximum Point Total=43**		**2.3**	**24.8**
** Input in Blue Boxes				

Table A-1 Continued

Airport Replacement Value	Chandelle Estates				
	Description	Units		Cost/Number	Amount
Land Value	Acres from 5010	27	Cost/Acre	$ 25,000.00	$ 675,000
Pavement					
Runway	Length x Width	70,925	Cost/sq.ft.	$ 15.00	$ 1,063,875
Taxiway	Length x Width	32,800		$ 15.00	$ 492,000
Apron Area	Estimated	3,680	Cost/sq.ft.	$ 10.00	$ 36,800
Hangars					
Conventional Hangars	Total Square Footage	15,535	Cost/sq.ft.	$ 150	$ 2,330,250
T-Hangars	Total Units	12	Cost/Unit	$ 100,000	$ 1,200,000
Fuel System	0=None, 1=12,000 gals,				
	2=More than 12,000 gals.			1	$ 200,000
Navigational Aids	0=None, 1=Nonprecision				
	2=Precision			0	
Internal Roadways	Total Linear Feet	1,380	Cost/l.f.	150	$ 207,000
Auto Parking Lots	Total Square Footage	11,500	Cost/sq.ft.	8	$ 92,000
Perimeter Fence	Total Linear Feet	-	Cost/l.f.	20	$ -
Air Traffic Control Tower	0=No, 1=Yes			0	$ -
Non-Hangar Buildings	Estimated	840	Cost/sq.ft.	$ 200	$ 168,000
Total Replacement Value					$ 6,464,925
Table 3 - Depreciated/Existing Airport Value					
	Age of Existing Facilities				
Land Value	N/A				$ 675,000
Pavement	Square Feet 0-5 years old	SF 6-10 yrs	SF 11-20 yrs	SF Over 20 yrs	
Runway				70,925	$ -
Taxiway		6,460		26,340	$ 60,563
Apron Area				3,680	$ -
Auto Parking Lots				11,500	$ -
Hangars					
Conventional Hangars	11,605			3,930	$ 1,826,488
T-Hangars				12	$ 396,000
Fuel System					$ 200,000
Instrument Approaches					$ -
Internal Roadways				1,380	$ 68,310
Linear Fence					$ -
Air Traffic Control Tower					$ -
Non-Hangar Buildings				840	$ 55,440
Existing Facility Value					$ 3,281,801

Delaware Airpark Scoring Matrix

Table A-1 - Airport Community Value Scoring Matrix Existing ACV Worksheet				
Airport Name	**Delaware Airpark**			
Existing IMPLAN Values	Derived from existing 2023 study or new effort			**Input Value**
Airport Jobs	Show Direct, Indirect, and Total			38
Total Output	Show Direct, Indirect, and Total			$4,775,800
Tax Contribution	Derived from existing 2023 study or new effort			$192,100
Existing Airport Replacement Value	See Input Sheet for Details			$37,366,000
Existing Airport Value w/Depreciation	See Input Sheet for Details			$31,050,594
Subtotal Existing ACV				$36,018,494
Economic Sustainability Factors				
		Input Value		**Factor Score**
Regional Airport Resource Factor	Maximum Point Total=4			1
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	2		
Average Population in Service Area	Use County Data for Each System Airport	186,946		
Airport Compatibility Factor	Maximum Point Total=5			4
Land Use Compatibility	1 Point for Each Quadrant with Little or No Residential	3		
Height Hazard Zoning	Yes/No 1 Point or Zero Points	1		
Location/Access	Maximum Point Total=4			2
Surface Access Infrastructure	1=Local Road, 2=Regional Arterial			
	3=Limited Access State Road 4=Interstate	3		
Business Use Index	Maximum Point Total=10			2.47
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	2		
Business Aviation Activity	# Based Business Jets + Multi-engine*	5		
	# Itinerant Operations	4,550		
Air Traffic Control Tower	Air Traffic Control Tower Yes/No (2 or 0)	-		
Expandability Factor	Maximum Point Total=4			4
On-Airport Expandability	Airside 1 to 4 using 4 pts. for 100%, 2 pts for 50%, etc.	4		
	Landside 1 to 4 using 1 pt. for each 5 acres	4		
Airport Capacity	Hangar Occupancy Rate (to be multiplied by Expandability)	1		
Community Commitment Factor	Maximum Point Total=4			4
Current Plans on File	1 pt. each - ACIP, Master Plan, Airport Zoning, Business Plan	4		
Federal Grant Assurances	Maximum Point Total=8			8
Grant Assurance in Place <5yrs, Old	8 pts.	8		
Grant Assurance Over 5 yrs. Old	4 pts.			
No Grant Assurance	0 pts.			
Economic Impacts	Maximum Point Total=4			0.271
Return on Assets	Economic Impact/Existing Asset Value. 2 pts. Distributed	0.154		
Impact Per Aircraft Operation	Index w/2 pts. for Highest Index Number, Distributed	207		
Total ESF Scoring	**Maximum Point Total=43**		**2.34**	**59.5**
** Input in Blue Boxes				

Table A-1 Continued

Airport Replacement Value	Delaware Airpark				
	Description	Units		Cost/Number	Amount
Land Value	Acres from 5010	319	Cost/Acre	$ 55,000.00	$ 17,545,000
Pavement					
Runway	Length x Width	315,500	Cost/sq.ft.	$ 15.00	$ 4,732,500
Taxiway	Length x Width	333,800		$ 15.00	$ 5,007,000
Apron Area	Estimated	224,200	Cost/sq.ft.	$ 10.00	$ 2,242,000
Hangars					
Conventional Hangars	Total Square Footage	6,800	Cost/sq.ft.	$ 150	$ 1,020,000
T-Hangars	Total Units	20	Cost/Unit	$ 100,000	$ 2,000,000
Fuel System	0=None, 1=12,000 gals,				
	2=More than 12,000 gals.			2	$ 500,000
Navigational Aids	0=None, 1=Nonprecision				
	2=Precision			1	$ 500,000
Internal Roadways	Total Linear Feet	4,050	Cost/l.f.	150	$ 607,500
Auto Parking Lots	Total Square Footage	14,100	Cost/sq.ft.	10	$ 141,000
Perimeter Fence	Total Linear Feet	16,420	Cost/l.f.	50	$ 821,000
Air Traffic Control Tower	0=No, 1=Yes			0	$ -
Non-Hangar Buildings	Estimated	7,500	Cost/sq.ft.	$ 300	$ 2,250,000
Total Replacement Value					$ 37,366,000

Table 3 - Depreciated/Existing Airport Value					
	Age of Existing Facilities				
Land Value	N/A				$ 17,545,000
Pavement	Square Feet 0-5 years old	SF 6-10 yrs	SF 11-20 yrs	SF Over 20 yrs	
Runway		315,500			$ 2,957,813
Taxiway		333,800			$ 3,129,375
Apron Area		224,200	61,000		$ 1,553,750
Auto Parking Lots			14,100		$ 35,250
Hangars					
Conventional Hangars			6,800		$ 637,500
T-Hangars		20			$ 1,625,000
Fuel System					$ 500,000
Instrument Approaches					$ 500,000
Internal Roadways		4,050			$ 493,594
Linear Fence		16,420			$ 667,063
Air Traffic Control Tower					$ -
Non-Hangar Buildings			7,500		$ 1,406,250
Existing Facility Value					$ 31,050,594

Jenkins Airport Scoring Matrix

Table A-1 - Airport Community Value Scoring Matrix Existing ACV Worksheet				
Airport Name	**Jenkins Airport**			
Existing IMPLAN Values	Derived from existing 2023 study or new effort			**Input Value**
Airport Jobs	Show Direct, Indirect, and Total			1
Total Output	Show Direct, Indirect, and Total			$115,200
Tax Contribution	Derived from existing 2023 study or new effort			$4,900
Existing Airport Replacement Value	See Input Sheet for Details			$3,306,000
Existing Airport Value w/Depreciation	See Input Sheet for Details			$2,095,980
Subtotal Existing ACV				$2,216,080
Economic Sustainability Factors				
		Input Value		**Factor Score**
Regional Airport Resource Factor	Maximum Point Total=4			0
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	1		
Average Population in Service Area	Use County Data for Each System Airport	186,946		
Airport Compatibility Factor	Maximum Point Total=5			3
Land Use Compatibility	1 Point for Each Quadrant with Little or No Residential	2		
Height Hazard Zoning	Yes/No 1 Point or Zero Points	1		
Location/Access	Maximum Point Total=4			2
Surface Access Infrastructure	1=Local Road, 2=Regional Arterial			
	3=Limited Access State Road 4=Interstate	2		
Business Use Index	Maximum Point Total=10			1.0
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	1		
Business Aviation Activity	# Based Business Jets + Multi-engine*	1		
	# Itinerant Operations	10		
Air Traffic Control Tower	Air Traffic Control Tower Yes/No (2 or 0)	-		
Expandability Factor	Maximum Point Total=4			2
On-Airport Expandability	Airside 1 to 4 using 4 pts. for 100%, 2 pts for 50%, etc.	1		
	Landside 1 to 4 using 1 pt. for each 5 acres	1		
Airport Capacity	Hangar Occupancy Rate (to be multiplied by Expandability)	2		
Community Commitment Factor	Maximum Point Total=4			1
Current Plans on File	1 pt. each - ACIP, Master Plan, Airport Zoning, Business Plan	1		
Federal Grant Assurances	Maximum Point Total=8			0
Grant Assurance in Place <5yrs, Old	8 pts.	-		
Grant Assurance Over 5 yrs. Old	4 pts.			
No Grant Assurance	0 pts.			
Economic Impacts	Maximum Point Total=4			0.1
Return on Assets	Economic Impact/Existing Asset Value. 2 pts. Distributed	0.057		
Impact Per Aircraft Operation	Index w/2 pts. for Highest Index Number, Distributed	5		
Total ESF Scoring	**Maximum Point Total=43**		**2.34**	**22.1**
** Input in Blue Boxes				

Table A-1 Continued

Airport Replacement Value	Jenkins Airport				
	Description	Units		Cost/Number	Amount
Land Value	Acres from 5010	60	Cost/Acre	$ 25,000.00	$ 1,500,000
Pavement					
Runway	Length x Width	-	Cost/sq.ft.	$ 15.00	$ -
Taxiway	Length x Width	-		$ 15.00	$ -
Apron Area	Estimated	-	Cost/sq.ft.	$ 10.00	$ -
Hangars					
Conventional Hangars	Total Square Footage	36,120	Cost/sq.ft.	$ 50	$ 1,806,000
T-Hangars	Total Units	-	Cost/Unit	$ 100,000	$ -
Fuel System	0=None, 1=12,000 gals,				
	2=More than 12,000 gals.			0	$ -
Navigational Aids	0=None, 1=Nonprecision				
	2=Precision			0	$ -
Internal Roadways	Total Linear Feet	-	Cost/l.f.	150	$ -
Auto Parking Lots	Total Square Footage	-	Cost/sq.ft.	8	$ -
Perimeter Fence	Total Linear Feet	-	Cost/l.f.	20	$ -
Air Traffic Control Tower	0=No, 1=Yes			0	$ -
Non-Hangar Buildings	Estimated		Cost/sq.ft.	$ 200	$ -
Total Replacement Value					$ 3,306,000
Table 3 - Depreciated/Existing Airport Value					
	Age of Existing Facilities				
Land Value	N/A				$ 1,500,000
Pavement	Square Feet 0-5 years old	SF 6-10 yrs	SF 11-20 yrs	SF Over 20 yrs	
Runway					$ -
Taxiway					$ -
Apron Area					$ -
Auto Parking Lots					$ -
Hangars					
Conventional Hangars				36,120	$ 595,980
T-Hangars					$ -
Fuel System					$ -
Instrument Approaches					$ -
Internal Roadways					$ -
Linear Fence					$ -
Air Traffic Control Tower					$ -
Non-Hangar Buildings					$ -
Existing Facility Value					$ 2,095,980

Chorman Airport Scoring Matrix

Table A-1 - Airport Community Value Scoring Matrix Existing ACV Worksheet				
Airport Name	**Chorman Airport**			
Existing IMPLAN Values	Derived from existing 2023 study or new effort			**Input Value**
Airport Jobs	Show Direct, Indirect, and Total			30
Total Output	Show Direct, Indirect, and Total			$2,906,400
Tax Contribution	Derived from existing 2023 study or new effort			$115,600
Existing Airport Replacement Value	See Input Sheet for Details			$20,472,250
Existing Airport Value w/Depreciation	See Input Sheet for Details			$11,140,924
Subtotal Existing ACV				$14,162,924
Economic Sustainability Factors				
		Input Value		**Factor Score**
Regional Airport Resource Factor	Maximum Point Total=4			1
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	2		
Average Population in Service Area	Use County Data for Each System Airport	221,451		
Airport Compatibility Factor	Maximum Point Total=5			4
Land Use Compatibility	1 Point for Each Quadrant with Little or No Residential	4		
Height Hazard Zoning	Yes/No 1 Point or Zero Points	-		
Location/Access	Maximum Point Total=4			2
Surface Access Infrastructure	1=Local Road, 2=Regional Arterial			
	3=Limited Access State Road 4=Interstate	3		
Business Use Index	Maximum Point Total=10			2.75
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	2		
Business Aviation Activity	# Based Business Jets + Multi-engine*	4		
	# Itinerant Operations	8,950		
Air Traffic Control Tower	Air Traffic Control Tower Yes/No (2 or 0)	-		
Expandability Factor	Maximum Point Total=4			4
On-Airport Expandability	Airside 1 to 4 using 4 pts. for 100%, 2 pts for 50%, etc.	3		
	Landside 1 to 4 using 1 pt. for each 5 acres	4		
Airport Capacity	Hangar Occupancy Rate (to be multiplied by Expandability)	1		
Community Commitment Factor	Maximum Point Total=4			2
Current Plans on File	1 pt. each - ACIP, Master Plan, Airport Zoning, Business Plan	2		
Federal Grant Assurances	Maximum Point Total=8			4
Grant Assurance in Place <5yrs, Old	8 pts.	4		
Grant Assurance Over 5 yrs. Old	4 pts.			
No Grant Assurance	0 pts.			
Economic Impacts	Maximum Point Total=4			0.367
Return on Assets	Economic Impact/Existing Asset Value. 2 pts. Distributed	0.261		
Impact Per Aircraft Operation	Index w/2 pts. for Highest Index Number, Distributed	126		
Total ESF Scoring	**Maximum Point Total=43**		**2.34**	**45.4**
** Input in Blue Boxes				

Table A-1 Continued

Airport Replacement Value	Chorman Airport				
	Description	Units		Cost/Number	Amount
Land Value	Acres from 5010	134	Cost/Acre	$ 25,000.00	$ 3,350,000
Pavement					
Runway	Length x Width	132,760	Cost/sq.ft.	$ 15.00	$ 1,991,400
Taxiway	Length x Width	33,430		$ 15.00	$ 501,450
Apron Area	Estimated	199,300	Cost/sq.ft.	$ 10.00	$ 1,993,000
Hangars					
Conventional Hangars	Total Square Footage	70,850	Cost/sq.ft.	$ 150	$ 10,627,500
T-Hangars	Total Units	8	Cost/Unit	$ 100,000	$ 800,000
Fuel System	0=None, 1=12,000 gals,				
	2=More than 12,000 gals.			1	$ 200,000
Navigational Aids	0=None, 1=Nonprecision				
	2=Precision			0	
Internal Roadways	Total Linear Feet	2,630	Cost/l.f.	150	$ 394,500
Auto Parking Lots	Total Square Footage	11,800	Cost/sq.ft.	8	$ 94,400
Perimeter Fence	Total Linear Feet	-	Cost/l.f.	30	$ -
Air Traffic Control Tower	0=No, 1=Yes			0	$ -
Non-Hangar Buildings	Estimated	2,600	Cost/sq.ft.	$ 200	$ 520,000
Total Replacement Value					$ 20,472,250

Table 3 - Depreciated/Existing Airport Value					
	Age of Existing Facilities				
Land Value	N/A				$ 3,350,000
Pavement	Square Feet 0-5 years old	SF 6-10 yrs	SF 11-20 yrs	SF Over 20 yrs	
Runway				132,760	$ -
Taxiway			33,430		$ 125,363
Apron Area		121,100	20,700	57,500	$ 808,625
Auto Parking Lots		5,800	6,000		$ 41,000
Hangars					
Conventional Hangars	18,330		13,400	39,120	$ 5,770,346
T-Hangars				8	$ 264,000
Fuel System					$ 200,000
Instrument Approaches					$ -
Internal Roadways		860	1,450	320	$ 256,590
Linear Fence					$ -
Air Traffic Control Tower					$ -
Non-Hangar Buildings			2,600		$ 325,000
Existing Facility Value					$ 11,140,924

Delaware Coastal Airport Scoring Matrix

Table A-1 - Airport Community Value Scoring Matrix Existing ACV Worksheet				
Airport Name	**Delaware Coastal Airport**			
Existing IMPLAN Values	Derived from existing 2023 study or new effort			**Input Value**
Airport Jobs	Show Direct, Indirect, and Total			617
Total Output	Show Direct, Indirect, and Total			$165,925,600
Tax Contribution	Derived from existing 2023 study or new effort			$5,368,600
Existing Airport Replacement Value	See Input Sheet for Details			$224,960,000
Existing Airport Value w/Depreciation	See Input Sheet for Details			$151,867,739
Subtotal Existing ACV				$323,161,939
Economic Sustainability Factors				
		Input Value		**Factor Score**
Regional Airport Resource Factor	Maximum Point Total=4			1
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	3		
Average Population in Service Area	Use County Data for Each System Airport	255,956		
Airport Compatibility Factor	Maximum Point Total=5			4
Land Use Compatibility	1 Point for Each Quadrant with Little or No Residential	3		
Height Hazard Zoning	Yes/No 1 Point or Zero Points	1		
Location/Access	Maximum Point Total=4			2
Surface Access Infrastructure	1=Local Road, 2=Regional Arterial			
	3=Limited Access State Road 4=Interstate	2		
Business Use Index	Maximum Point Total=10			3.93
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	3		
Business Aviation Activity	# Based Business Jets + Multi-engine*	13		
	# Itinerant Operations	7,500		
Air Traffic Control Tower	Air Traffic Control Tower Yes/No (2 or 0)	-		
Expandability Factor	Maximum Point Total=4			3
On-Airport Expandability	Airside 1 to 4 using 4 pts. for 100%, 2 pts for 50%, etc.	1		
	Landside 1 to 4 using 1 pt. for each 5 acres	4		
Airport Capacity	Hangar Occupancy Rate (to be multiplied by Expandability)	1		
Community Commitment Factor	Maximum Point Total=4			4
Current Plans on File	1 pt. each - ACIP, Master Plan, Airport Zoning, Business Plan	4		
Federal Grant Assurances	Maximum Point Total=8			8
Grant Assurance in Place <5yrs, Old	8 pts.	8		
Grant Assurance Over 5 yrs. Old	4 pts.			
No Grant Assurance	0 pts.			
Economic Impacts	Maximum Point Total=4			3.28
Return on Assets	Economic Impact/Existing Asset Value. 2 pts. Distributed	1.128		
Impact Per Aircraft Operation	Index w/2 pts. for Highest Index Number, Distributed	4,880		
Total ESF Scoring	**Maximum Point Total=43**		**2.34**	**68.1**
** Input in Blue Boxes				

Table A-1 Continued

Airport Replacement Value	Delaware Coastal Airport				
	Description	Units		Cost/Number	Amount
Land Value	Acres from 5010	663	Cost/Acre	$ 125,000.00	$ 82,875,000
Pavement					
Runway	Length x Width	1,059,000	Cost/sq.ft.	$ 25.00	$ 26,475,000
Taxiway	Length x Width	992,720		$ 25.00	$ 24,818,000
Apron Area	Estimated	848,200	Cost/sq.ft.	$ 15.00	$ 12,723,000
Hangars					
Conventional Hangars	Total Square Footage	283,500	Cost/sq.ft.	$ 150	$ 42,525,000
T-Hangars	Total Units	19	Cost/Unit	$ 100,000	$ 1,900,000
Fuel System	0=None, 1=12,000 gals,				
	2=More than 12,000 gals.			2	$ 1,000,000
Navigational Aids	0=None, 1=Nonprecision				
	2=Precision			1	$ 1,500,000
Internal Roadways	Total Linear Feet	10,760	Cost/l.f.	150	$ 1,614,000
Auto Parking Lots	Total Square Footage	163,500	Cost/sq.ft.	10	$ 1,635,000
Perimeter Fence	Total Linear Feet	24,500	Cost/l.f.	50	$ 1,225,000
Air Traffic Control Tower	0=No, 1=Yes			0	$ -
Non-Hangar Buildings	Estimated	88,900	Cost/sq.ft.	$ 300	$ 26,670,000
Total Replacement Value					$ 224,960,000

Table 3 - Depreciated/Existing Airport Value					
	Age of Existing Facilities				
Land Value	N/A				$ 82,875,000
Pavement	Square Feet 0-5 years old	SF 6-10 yrs	SF 11-20 yrs	SF Over 20 yrs	
Runway		825,000	234,000		$ 14,353,125
Taxiway	512,850	7,200	472,650		$ 14,285,156
Apron Area	90,880		320,960	436,360	$ 2,396,400
Auto Parking Lots			22,100	141,400	$ 55,250
Hangars					
Conventional Hangars	31,200	10,000	30,000	212,300	$ 18,927,600
T-Hangars	10			9	$ 1,234,500
Fuel System					$ 1,000,000
Instrument Approaches					$ 1,500,000
Internal Roadways				10,760	$ 532,620
Linear Fence			24,500		$ 765,625
Air Traffic Control Tower					$ -
Non-Hangar Buildings		26,030	15,520	47,350	$ 13,942,463
Existing Facility Value					$ 151,867,739

Laurel Airport Scoring Matrix

Table A-1 - Airport Community Value Scoring Matrix Existing ACV Worksheet				
Airport Name	**Laurel Airport**			
Existing IMPLAN Values	Derived from existing 2023 study or new effort			**Input Value**
Airport Jobs	Show Direct, Indirect, and Total			3
Total Output	Show Direct, Indirect, and Total			$188,300
Tax Contribution	Derived from existing 2023 study or new effort			$8,200
Existing Airport Replacement Value	See Input Sheet for Details			$6,398,200
Existing Airport Value w/Depreciation	See Input Sheet for Details			$4,311,031
Subtotal Existing ACV				$4,507,531
Economic Sustainability Factors				
		Input Value		**Factor Score**
Regional Airport Resource Factor	Maximum Point Total=4			0
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	1		
Average Population in Service Area	Use County Data for Each System Airport	255,956		
Airport Compatibility Factor	Maximum Point Total=5			5
Land Use Compatibility	1 Point for Each Quadrant with Little or No Residential	4		
Height Hazard Zoning	Yes/No 1 Point or Zero Points	1		
Location/Access	Maximum Point Total=4			2
Surface Access Infrastructure	1=Local Road, 2=Regional Arterial			
	3=Limited Access State Road 4=Interstate	2		
Business Use Index	Maximum Point Total=10			1.05
Airport Classification	Use Classes 1 - 4 (Not Military or Airline)	1		
Business Aviation Activity	# Based Business Jets + Multi-engine*	-		
	# Itinerant Operations	750		
Air Traffic Control Tower	Air Traffic Control Tower Yes/No (2 or 0)	-		
Expandability Factor	Maximum Point Total=4			6
On-Airport Expandability	Airside 1 to 4 using 4 pts. for 100%, 2 pts for 50%, etc.	2		
	Landside 1 to 4 using 1 pt. for each 5 acres	4		
Airport Capacity	Hangar Occupancy Rate (to be multiplied by Expandability)	2		
Community Commitment Factor	Maximum Point Total=4			1
Current Plans on File	1 pt. each - ACIP, Master Plan, Airport Zoning, Business Plan	1		
Federal Grant Assurances	Maximum Point Total=8			0
Grant Assurance in Place <5yrs, Old	8 pts.	-		
Grant Assurance Over 5 yrs. Old	4 pts.			
No Grant Assurance	0 pts.			
Economic Impacts	Maximum Point Total=4			0.056
Return on Assets	Economic Impact/Existing Asset Value. 2 pts. Distributed	0.044		
Impact Per Aircraft Operation	Index w/2 pts. for Highest Index Number, Distributed	8		
Total ESF Scoring	**Maximum Point Total=43**		**2.3**	**36.4**
** Input in Blue Boxes				

Table A-1 Continued

Airport Replacement Value	Laurel Airport				
	Description	Units		Cost/Number	Amount
Land Value	Acres from 5010	88	Cost/Acre	$ 25,000.00	$ 2,200,000
Pavement					
Runway	Length x Width		Cost/sq.ft.	$ 15.00	$ -
Taxiway	Length x Width			$ 15.00	$ -
Apron Area	Estimated	52,930	Cost/sq.ft.	$ 10.00	$ 529,300
Hangars					
Conventional Hangars	Total Square Footage	8,970	Cost/sq.ft.	$ 150	$ 1,345,500
T-Hangars	Total Units	12	Cost/Unit	$ 100,000	$ 1,200,000
Fuel System	0=None, 1=12,000 gals,				
	2=More than 12,000 gals.			0	
Navigational Aids	0=None, 1=Nonprecision				
	2=Precision			1	$ 500,000
Internal Roadways	Total Linear Feet	1,820	Cost/l.f.	150	$ 273,000
Auto Parking Lots	Total Square Footage	22,800	Cost/sq.ft.	8	$ 182,400
Perimeter Fence	Total Linear Feet	-	Cost/l.f.	30	$ -
Air Traffic Control Tower	0=No, 1=Yes			0	$ -
Non-Hangar Buildings	Estimated	840	Cost/sq.ft.	$ 200	$ 168,000
Total Replacement Value					$ 6,398,200

Table 3 - Depreciated/Existing Airport Value

	Age of Existing Facilities				
Land Value	N/A				$ 2,200,000
Pavement	Square Feet 0-5 years old	SF 6-10 yrs	SF 11-20 yrs	SF Over 20 yrs	
Runway					$ -
Taxiway					$ -
Apron Area	52,930				$ 463,138
Auto Parking Lots				22,800	$ -
Hangars					
Conventional Hangars	2,390			6,580	$ 661,804
T-Hangars				12	$ 396,000
Fuel System					
Instrument Approaches					$ 500,000
Internal Roadways				1,820	$ 90,090
Linear Fence					$ -
Air Traffic Control Tower					$ -
Non-Hangar Buildings					$ -
Existing Facility Value					$ 4,311,031

DelDOT AERONAUTICS

R.A. Wiedemann & Associates, Inc.
AVIATION CONSULTANTS

Delaware Airport Community Value

www.deldot.gov

DelDOT Office of Aeronautics
800 S Bay Rd
Dover, DE 19901
Ph: 302-760-2149