Airport Advisory Board Minutes
June 19, 2013, 5:30pm
Airport Administration Building
8807 Airport Boulevard
Leesburg, Florida

Attendance: Alun Jones
Jake Kertz
David Lewis
Jon VanderLey

Call to Order

Chairman David Lewis called the meeting to order at 5:35pm.

Jon VanderLey gave the invocation and led the Pledge of Allegiance.

Approval of Minutes from May 15, 2013 Meeting

Chairman Lewis asked if all members had read the minutes from the May 15, 2013 meeting. Jon VanderLey made a motion to accept the meeting minutes. Alun Jones seconded the motion and it was approved unanimously.

Memorial – Remembering Paul Soule

Chairman Lewis said he met Paul Soule when he first came to the airport about a year ago and asked the Board to help him obtain hangar space. They became associates through this process. He will be missed on the airport.

John Francis said he met Paul when he first came to the airport. He thought a lot of him. There were many times Paul would come to his hangar and they would talk. He was well known in South Florida. They are having a dinner to honor him in July and many people from Miami are coming. He will definitely be missed out here.

Deputy City Manager (DCM) Doug Drymon said he met Paul during the process of leasing him a hangar. He found him to be a gentleman, highly competent and easy to get along with. He will be missed.

A moment of silence was held.

Airport Layout Plan Update Discussion

Lisa Waters of Hanson Professional Services said at this meeting they will be reviewing Project Memorandum 2. (See Attachment A) She stated that the Airport Layout Plan Update (ALPU) is a condensed project. The main focus is on the first five years (2018). The objective of this meeting is to reach a consensus on activity forecasts. The FAA and FDOT were very adamant about what they would fund on

this project. Hanson cannot conduct new forecast studies. The airport must look at the Florida Aviation System Plan forecast (FASP) and FAA Terminal Area Forecast (TAF) and determine which of these numbers are the most accurate or if an average of the two is better. In most cases it appears the FASP numbers are more accurate when compared to the actual information for the airport. She reviewed a PowerPoint presentation with charts comparing actual numbers to the TAF and FASP forecasts. (See Attachment B)

The Board reached a consensus on the following:

- Based Aircraft: Adopt the average of the TAF and FASP
- Aircraft Operations: Adopt the FASP numbers
- Annual Instrument Approaches: Use the 8.7% on the FASP
- Aircraft Fleet Mix: Use the FASP numbers and normalize, which will reduce them by a small amount
- Operational Fleet Mix: Use the FASP numbers

A land use map update is also required as part of this process. The maps now show all projects that have been completed on the airport since the last update. Land use – aviation vs. non-aviation – needs to be reviewed. The maps will be left here for everyone to review after the meeting. Any additional information needs to be given to Airport Manager (AM) Treggi no later than the end of next week so it can be incorporated into their data before the next meeting.

DCM Drymon noted that the condo hangars are shown as commercial. They are not really part of the airport. Lisa Waters said the designation is based on City land use categories. DCM Drymon said there is a small area at the runway intersection designated as future aeronautical. He asked what this might be used for. Chairman Lewis said it might be possible to locate navigation equipment in this area. It could also be used as a secure area for emergency purposes.

Chairman Lewis asked if there is a category for "aviation *OR* non-aviation *OR* commercial". Lisa Waters said she will have to check on that. DCM Drymon said he believes the current Master Plan does show some of the 441 properties as "aviation *OR* commercial".

Chairman Lewis said the entire east side of the airport should be designated as aviation even though much of the area is wetland and will have to be mitigated. Alun Jones noted that the old railroad bed is compacted and would be a good base for a road.

Chairman Lewis noted that at some point in the future it might be possible to extend RW 21 into the current RPZ by putting US 441 through a tunnel under the runway. If that should happen, he asked if the airport is protected from development on Silver

Lake. He also noted that while the FAA does not want anything built in the RPZ, it might be possible to use the property on the sides for commercial development. Chairman Lewis said the parcel at the west side of the end of RW 13 on US 441 should be pursued for future purchase.

Jake Kertz asked if an extension of RW 3/21 could be shown. Lisa Waters said that would be very hard to justify. It would also be very expensive due to environmental consequences. Something like that should wait for the full blown Master Plan.

Michael Moon noted that AM Treggi has asked them to draw the maps with taxiway B moved out so it becomes a ramp edged taxiway. They do not recommend eliminating taxiway B due to incursion/safety risks. Alun Jones noted that taxiway B is the second most used taxiway on the airport. Michael Moon asked the Board members if they are in favor of moving taxiway B to allow for the creation of more apron space. The Board members all agreed to recommend relocating taxiway B.

Lisa Waters said they will bring a summary of the forecasts to the next meeting. The discussion topic at the July meeting will be facility requirements. She reminded everyone to get comments on the issues discussed today to AM Treggi by next Friday.

Project Update

Michael Moon of Hanson Professional Services provided the following information on projects.

Airfield Lighting: This project came in above cost. Hanson and the City are working on a plan to cut the project back and do the runway lighting only

Security Fence: This project is 70% complete. It is on target for completion by August 1st.

Signage: This project has been moved out to 2014.

ALPU: This was just reviewed by Lisa Waters

Taxiway A Realignment: They are coordinating with the City to get this out to bid to meet the grant deadline. They are working with the City on separate Task Orders to complete the extension to the property line and the seaplane ramp.

Airport Manager Update

Chairman Lewis noted there was an article about AM Treggi on the front page of the Daily Commercial newspaper today.

AM Treggi provided the following information.

- PAPI on RW 3 is repaired and back on line.

- The airport is now part of the FDOT Pavement Management Program. Under this program, FDOT will monitor pavement conditions at the airport. One of the benefits of participating in the program is that it makes it a bit easier to get grant funding when work is needed on the runways.

- The budget is being finalized. He was able to save approximately 10% of operational costs. That may possibly help fund some projects. One major change is that the airport will have a full-time employee to do maintenance work. That will eliminate expenses that have been paid to contractors in the past. It is too late in this year's budget process to set up an Enterprise Fund for the airport. He hopes that can be done next year.

- He has given a draft leasing policy to Interim City Manager (ICM) Sharp for review. The policy actually combines updated Minimum Standards and the Lease Policy into one document. It is a very simple/basic document based on standards of industry and tailored to airports. He hopes to have it finalized in August.

Chairman Lewis asked for an updated cash flow report. AM Treggi said he will provide that to the Board.

Chairman Lewis asked the Board members if there is anything they would like AM Treggi to work on. Alun Jones said the most important thing is the Lease Policy. Jon VanderLey said he seems to be doing a lot already for only being part-time.

Chairman Lewis asked when is the best time for someone to talk to him at the airport. AM Treggi said he is at the airport every day except Wednesdays. His hours do vary. The best thing is to call his cell phone and arrange a meeting.

New Business

Chairman Lewis asked the Board members and public in attendance if anyone had new business for discussion. There was no new business.

Adjournment

Alun Jones made a motion to adjourn the meeting. Jon VanderLey seconded the motion. The meeting adjourned at 6:45pm.

Chairman

Secretary

INTERIM AIRPORT LAYOUT PLAN (ALP) UPDATE AND NARRATIVE REPORT
Leesburg International Airport, Leesburg Florida

Project Memorandum No. 2

TO: Leo Treggi, Airport Manager, Chair and Members, Airport Advisory Board

THRU: Doug Drymon, Deputy City Manager

FROM: Lisa Waters, Sr. Aviation Planner, Hanson Professional Services Inc.
Mike Moon, Special Consultant, Hanson Professional Services Inc.

DATE: **June 18, 2013**

SUBJECT: **Project Memorandum No. 2 – Forecast of Future Aviation Activity and Facility Requirements**

Project memorandum No. 1 was presented at the May 20, 2013 Airport Advisory Board meeting. The memo outlined the existing airport facilities, tenants, historic operations, fleet mix and based aircraft. Since the May AAB meeting, the Airport manager and tenants have forwarded updated based aircraft data that will be incorporated in the final narrative report.

This memorandum presents projections of future activity that will provide the basis for the evaluation of existing airport facilities' capacity to accommodate future traffic levels. Projections of demand will be used to plan the type, quantity, and timing of needed improvements. This memorandum outlines the projections of aviation demand identified in the FAA's Terminal Area Forecast (TAF) and the Florida Department of Transportation's (FDOT) Florida Aviation System Plan (FASP).

Objectives of this AAB Meeting:

- Review the forecasts of aviation activity documented in the TAF and FASP and form a consensus regarding adoption of a recommended forecast for this project. The recommended forecast will be the basis of the facility requirements analysis and identification of future improvement needs.
- Review the land use plan and proposed future development plan and provide input regarding the designation of future aviation and non-aviation land uses in the airport environs.

1 FORECAST METHODOLOGIES

Forecasts were developed for several components of demand at the airport including:

- Based aircraft (number, type)
- Aircraft operations (total annual, local/itinerant)
- Annual instrument approaches
- Aircraft mix and design aircraft

Consistent with federal and state guidelines for airport master planning, the forecasts were identified for three planning horizons – short-range (five years), intermediate-range (10 years), and long-range (20 years). Subsequent sections describe the context within which the forecasts were developed, data used, methods employed, and identifies the next steps in the ALP update.

Forecast data were collected from the TAF and FASP. The scope of work for this task required the comparison of projections from both sources; therefore, a full forecast was not developed. The methodologies of both sources are discussed below.

Terminal Area Forecast (TAF) – The TAF is the official forecast of aviation activity at FAA facilities. These forecasts are prepared to meet the budget and planning needs of FAA and provide information for use by state and local authorities and the aviation industry. The TAF includes forecasts for active airports in the National Plan of Integrated Airport System (NPIAS). The historical data and forecasts are located on an FAA's website.

Aviation activity forecasts at FAA-towered and contract towered airports are developed using historical relationships between airport activity measures and local and national factors influencing aviation activity. Each estimate is examined for its reasonableness by comparisons with historical trends and for consistency with airport activity. Other methods may include use of other functional forms and the use of growth rates developed separately from TAF. The TAF may incorporate estimates prepared by local authorities and/or recent FAA-approved airport master plan forecasts, when the forecast staff economists conclude that the methods used to develop these forecasts are accept able. The TAF assumes an unconstrained[1] demand for aviation services based upon local and national economic conditions as well

[1] The forecast is not affected by the airport or air traffic control systems capacity to meet the demand.

as conditions within the aviation industry. However, if the airport historically functions under constrained conditions, the FAA forecast may reflect those constraints since they are embedded in historical data. Because military operations forecasts often have national security implications, the Department of Defense (DOD) provides only limited information on future military aviation activity.

Florida Aviation System Plan (FASP) – The Florida Department of Transportation uses a similar approach to aviation forecasting. The FDOT uses FAA data as a source but also calculates projections based on data collected by field inspectors during the 5010 Airport Master Record update process. Because aviation is a large part of the transportation system in the state of Florida, FDOT relies heavily on aviation trends within the state of Florida, including high levels of flight training.

2 FORECAST RESULTS

Projections collected from both sources mentioned in Section 1 of this document are discussed here.

2.1 Based Aircraft

The number of based aircraft at an airport is an important indicator in determining future activity levels and the need for expanded or improved airport facilities. Forecasts of based aircraft are used directly to estimate the need for certain types of facilities such as hangars, aircraft aprons and support facilities. Projections of based aircraft also may serve as the basis for projecting other components of demand such as aircraft operations.

The inventory relied on airport staff collecting based aircraft information from tenants. As of May 24, 2013 airport records show a total of 141 based aircraft including 13 helicopters and 8 amphibians. Historical data reported in the TAF indicated that the based aircraft levels have declined since the late 1990's. There have been minor fluctuations in based aircraft over the past 5 years. **Table 2.1** compares the actual 2013 based aircraft to data collected from the FASP, TAF, and 2000 Master Plan Update. **Note: The FASP forecast ends at 2031.** For that reason, the Consultant has extrapolated the FASP forecast data for 2033.

Table 2.1 Comparison of Actual vs. Forecast Based Aircraft				
Year	Actual	TAF (2012)	FASP	2000 MPU
2003		188	215	
2004		186	215	
2005		186	215	204
2006		186	215	
2007		186	215	
2008		109	200	
2009	99	99	215	
2010		90	215	224*
2011		87	215	
2012		89	218	
2013	141	90*	220*	
2018		**99***	**235***	
2023		**108***	**250***	
2033		**128***	**283***	
Note: * identifies forecast figures, 2033 data extrapolated				
Source: FAA TAF, 2013; FDOT FASP, 2013; 2000 Master Plan; & airport records 2013				

These based aircraft forecasts showed the following:

- TAF: This forecast indicates a 29.29% increase in based aircraft throughout the planning period; however, the growth remains below the current 2013 number of based aircraft. The consultant considers the data from this source to be insufficient for all planning horizons.
- FASP: The FASP anticipates a 20.43% increase during planning period. This source has historically overestimated the number of based aircraft and continues the same trend over the three planning period. In the consultant's experience, that level of increase is unlikely under normal growth conditions, would require substantial shifting of airplanes from other airports, and would require airport improvements for which financial resources are uncertain. Based aircraft for 2033 was extrapolated based on a projected growth rate of 13.20% from 2023 to 2033.

Both sources appear to provide forecasts at opposite ends of the spectrum, TAF underestimates and the FASP overestimates. For that reason, **Table 2.2** provides an average of the two sources. The method of averaging provides a more realistic forecast for LEE.

Table 2.2 Comparison of TAF/FASP and Average of Based Aircraft				
Year	TAF	FASP	Difference	Average
2018	99	235	136 (137.37%)	167
2023	108	250	142 (131.48%)	179
2033	128	283	155 (121.10%)	206
Source: FAA TAF, 2013; FDOT FASP, 2013; & Hanson				

2.2 Annual Operations

Forecasts of annual operations[2] from the TAF and FASP were also collected for this ALP Update. Operations forecasts are used to examine airport capacity and determine future facility requirements. **Table 2.3** compares the historical data provided by the Air Traffic Control Tower to data collected from the FASP, TAF, and 2000 Master Plan Update.

Table 2.3 Comparison of Actual vs. Forecast Aircraft Operations				
Year	Actual	TAF (2012)	FASP	2000 MPU
2003		112,326	117,016	
2004		114,506	117,016	
2005	114,400	116,711	117,016	114,400*
2006		118,651	117,016	
2007		70,611	79,987	
2008	62,152	60,877	62,152	
2009	67,611	63,442	67,611	
2010	50,646	49,762	50,646	125,600*
2011	52,812	52,322	52,812	
2012	54,712	54,735	53,583	
2013		56,422*	54,365*	
2018		**57,870***	**58,452***	
2023		**59,393***	**62,845***	
2033		**62,675***	**72,624***	
Note: * identifies forecast figures, 2033 FASP Data extrapolated				
Source: FAA TAF, 2013; FDOT FASP, 2013; 2000 Master Plan; and ATCT reports, 2008-2013				

These operations forecasts showed the following:

[2] An operation is a take-off or a landing. Touch-and-go activity and stop-and-go activity that simulate take-offs and landings constitute two operations for each touch-and-go or stop-and-go cycle.

- TAF: This forecast indicates an 8.30% increase in operations over the planning period. Historically, the TAF has underestimated the annual operations for LEE. 2009 had the largest difference with the TAF underestimating by 4,169 operations. The forecast is close, but the Consultant Team is anticipating an increase in operations associated with the addition of the seaplane base.
- FASP: The forecast from FDOT anticipates a 24.25% increase over the planning periods. It appears that the FASP historical numbers, except for 2012, have been updated to accurately report the number of operations as reported by the tower. Annual operations were extrapolated for 2033 based on a projected growth rate of 15.56% from 2023 to 2033.

2.2.1 Itinerant/Local/Military Operations

A local operation is a takeoff or a landing performed by an aircraft that will operate within the local traffic pattern, within sight of the airfield, or one that simulates a takeoff or a landing. Itinerant operations are all other arrivals and departures.

The TAF database showed no growth for military or itinerant operations. The TAF data is presented below in **Table 2.4**. Because the FASP does not have data for 2033, the FASP forecast presented in Table 4 has been extrapolated using historic data provided by the airport tower. Historic data showed that itinerant operations ranged from approximately 39.59% to 40.53% of total annual operations for the period 2008 to 2012. Itinerant operations averaged 40.93% percent for that period. This methodology was used to for military and local operations. The split between local, itinerant, and military operations used for the FASP assumptions are 58.37% local, 40.93% itinerant, and 0.34% military. FASP projections are shown in **Table 2.4**.

Table 2.4 Comparison of Forecast Airport Operations, Actual to TAF and FASP				
Year	Local	Itinerant	Military	Total
2008	36,748	25,193	211	62,152
2009	37,731	29,650	230	67,611
2010	30,423	20,051	172	50,646
2011	31,403	21,229	180	52,812
2012	32,373	22,153	186	54,712
TAF				
2018	**29,837**	**27,766**	**267**	**57,870**
2023	**31,360**	**27,766**	**267**	**59,393**
2033	**34,642**	**27,766**	**267**	**62,675**
FASP*				
2018	**34,329**	**23,924**	**199**	**58,452**
2023	**36,909**	**25,722**	**214**	**62,845**
2033	**42,652**	**29,725**	**247**	**72,624**

Note: FASP data is extrapolated

Source: Leesburg International Airport ATCT Report; FAA TAF, 2013; & FDOT FASP

2.3 Annual Instrument Approaches (AIA)

The annual instrument approaches (AIA) are the number of arrivals by both itinerant and local traffic that utilize the instrument approaches at LEE. As noted in Project Memorandum No. 1, LEE has published GPS approaches on Runways 13, 31 and 3. LEE has published NDB approaches on Runways 13 and 31. A 5-month sample of operational data was selected out of the historic data provided in the Air Traffic Control Tower records. May 2012 through September 2012 was selected because they were the only months that had both total monthly operations and instrument approaches. This sample is provided below in **Table 2.5** and was used to calculate the percentage of monthly operations that are instrument approaches.

Table 2.5 Percentage of Annual Instrument Approaches, 5-Month Count			
Month	No. of Instrument Approaches	Total Monthly Operations	Percentage
May 2012	381	5,169	7.37%
June 2012	367	4,072	9.01%
July 2012	389	4,114	9.46%
August 2012	400	4,234	9.45%
September 2012	353	4,094	8.62%
Total	**1,890**	**21,683**	**8.72%**
Average	-	-	**8.78%**
Source: Leesburg International Airport ATCT Reports, 2012			

Table 2.6 Annual Instrument Approaches			
Year	Annual Operations	AIA	% of Total Operations Total
TAF			
2018	57,870	5,035	8.71%
2023	59,393	5,167	8.71%
2033	62,675	5,452	8.70%
FASP*			
2018	58,452	5,085	8.70%
2023	62,845	5,468	8.70%
2033	72,624	6,318	8.70%
Note: Percentage may differ due to rounding.			
Source: Leesburg International Airport ATCT Report; FAA TAF, 2013; & FDOT FASP, and Hanson			

The average of 8.7% was applied to the forecast annual operations in **Table 2.3** to determine the forecast number of annual instrument approaches. On that basis, the TAF & FASP forecasts the following instrument approaches:

2.4 Aircraft Mix and Design Aircraft

Aircraft mix refers to the types of airplanes that use, and are expected to use, the airport. Mix is considered in determining requirements for runway length, strength, and width among other design parameters. Mix also reflects three primary aircraft characteristics with respect to airfield design – weight, approach speed, and wingspan. Review and consideration of these factors produces planning

inputs including the design aircraft for the airport as well as the mix of based aircraft and the overall operational fleet mix. FAA Advisory Circular (AC) 150/5300-13A, *Airport Design,* suggests two categories of aircraft weight. These categories were discussed in Project Memorandum #1. The design category for Runway 13/31 is C-III (design aircraft Embraer 170) and the design category for Runway 3/21 is B-II (design aircraft Beech King Air 100).

In the absence of historic based aircraft data, the forecast of based aircraft mix for the 20-year planning horizon was determined using the 2013 Based Aircraft Inventory completed by airport staff. The Based Aircraft Inventory reported 141 based aircraft. The distribution of these by equipment type is provided in **Table 2.7**.

Table 2.7 Existing Based Aircraft, April 2013

Type	Number	Percentage of Total
Single Engine	80	67.38%
Multi-Engine	26	7.80%
Jet	10	7.09%
Helicopter	13	9.22%
Experimental	4	2.84%
Amphibious	8	5.67%
Total	**141**	**100%**

Source: Leesburg International Airport Staff, 2013

The TAF anticipated future growth in single-engine equipment only. There are no forecasts provided for experimental or amphibious aircraft types. As discussed in Section 2.1 of this memorandum, the number of based multi-engine, jet, helicopter, experimental and amphibious equipment types currently exceed the TAF forecast. The forecast for FASP has been extrapolated using the percentages identified in **Table 2.8**. With the addition of the seaplane base and Wipair's maintenance facility, operations and based amphibious aircraft are projected to increase over the 20-year planning horizon.

Table 2.8 Forecast of Based Aircraft Mix							
Year	Total Based Aircraft	Single-Engine	Multi-Engine	Jet	Helicopter	Experimental	Amphibious
2013	141	80	26	10	13	4	8
TAF							
2018	99	79	18	1	1	0	0
2023	108	88	18	1	1	0	0
2033	128	108	18	1	1	0	0
FASP*							
2018	235	158	18	17	22	7	13
2023	250	168	20	18	23	7	14
2033	283	191	22	20	26	8	16
Source: Leesburg International Airport Staff, FAA TAF, & FDOT FASP							

The operational fleet mix is more difficult to estimate even with the use of the TAF and FASP. Neither source breakout the forecast projects by aircraft category or types. In the absence of that data, the 2000 Master Plan Update and current mix distribution was used to determine the percentages applied to each aircraft type. **Table 2.9** provides the forecast of operational fleet mix.

Table 2.9 Forecast of Operational Fleet Mix							
Year	Total Operations	Single-Engine	Multi-Engine	Jet	Helicopter	Experimental	Amphibious
2013 estimate		74.35%	16.00%	8.02%	0.70%	.30%	0.63%
Based on TAF							
2018	**57,870**	43,026	9,259	4,641	405	174	365
2023	**59,393**	44,159	9,503	4,763	416	178	374
2033	**62,675**	46,599	10,028	5,027	439	188	395
Based on FASP							
2018	**58,452**	43,459	9,352	4,688	409	175	368
2023	**62,845**	46,725	10,055	5,040	440	189	396
2033	**72,624**	53,996	11,620	5,824	508	218	458
Source: Leesburg International Airport Reports, 2013; FAA TAF, 2013; & FDOT FASP, 2013							

A summary of the forecasts of aviation demand are shown below:

Forecast Summary

	2013	2018			2023			2033		
		TAF	FASP	Average	TAF	FASP	Average	TAF	FASP	Average
Based Aircraft										
Single-Engine	80	79	158	119	88	168	128	108	191	150
Multi-Engine	26	18	18	18	18	20	19	18	22	20
Jet	10	1	17	9	1	18	10	1	20	11
Helicopter	13	1	22	12	1	23	12	1	26	14
Experimental	4	0	7	4	0	7	4	0	8	4
Amphibious	8	0	13	7	0	14	7	0	16	8
Total	**141**	**99**	**235**	**167**	**108**	**250**	**179**	**128**	**283**	**206**
Annual Operations										
Local	32,373	29,837	34,329		31,360	36,909		34,642	42,652	
Itinerant	22,153	27,766	23,924		27,766	25,722		27,766	29,725	
Military	186	267	199		267	214		267	247	
Total	**54,712**	**57,870**	**58,452**		**59,393**	**62,845**		**62,675**	**72,624**	

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Attachment B – 12 Pages

HANSON

Engineering | Architecture | Planning | Allied Services

Leesburg International Airport

Airport Advisory Board Meeting

Interim ALP Update

THE LAKEFRONT CITY

LEESBURG

EST. 1857

June 19, 2013

Airport Administration Conference Room

Leesburg International Airport Interim ALP Update

Interim ALP "Checklist"

Task / Status		
Task 1	**Airport Requirements**	
Task 1.1	Collect / Document Historical Airport Data	COMPLETE
Task 1.2	Forecast Of Future Aviation Demand Facility Requirements	IN PROCESS
Task 1.3	Submit FAA Form 7480-1 (Seaplane Base)	COMPLETE
Task 1.4	Draft Narrative Report	IN PROCESS
Task 2	**Airport Layout Plans**	
Task 2.1	Airport Plan Sheet Development	IN PROCESS

Leesburg International Airport Interim ALP Update

Objectives of this meeting

1. Review and reach consensus on activity forecasts
   - ✓ Based Aircraft
   - ✓ Annual Inst. Approaches
   - ✓ Aircraft Operations
   - ✓ Aircraft Mix/Design Aircraft

2. Review Land Use Plan and discuss future development needs

Leesburg International Airport Interim ALP Update

Forecasts of Aviation Demand

- **Based Aircraft**

Comparison of TAF/FASP and Average of Based Aircraft					
Year	Airport	TAF (2012)	FASP	Difference	Average
2009	**99**	**99**	**215**		
2013	**141**	**90**	**220**		
2018		99	235	136 (137.37%)	**167**
2023		108	250	142 (131.48%)	**179**
2033		128	283	155 (121.10%)	**206**

Leesburg International Airport Interim ALP Update

Forecasts of Aviation Demand

- **Aircraft Operations**

Comparison of Forecast Airport Operations, Actual to TAF and FASP				
Year	**Local**	**Itinerant**	**Military**	**Total**
2008	36,748	25,193	211	62,152
2009	37,731	29,650	230	67,611
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Leesburg International Airport Interim ALP Update

Forecasts of Aviation Demand

- Annual Instrument Approaches

Annual Instrument Approaches			
Year	Annual Operations	AIA	% of Total Operations Total
TAF			
2018	57,870	5,035	8.71%
2023	59,393	5,167	8.71%
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2018	58,452	5,085	8.70%
2023	62,845	5,468	8.70%
2033	72,624	6,318	8.70%

Leesburg International Airport Interim ALP Update

Forecasts of Aviation Demand

- Aircraft Fleet Mix

Forecast of Based Aircraft Fleet Mix							
Year	Total Based Aircraft	Single-Engine	Multi-Engine	Jet	Helo.	Exp.	Amphib.
2013	141	80	26	10	13	4	8
Based on TAF							
2018	99	79	18	1	1	0	0
2023	108	88	18	1	1	0	0
2033	128	108	18	1	1	0	0
Based on FASP							
2018	235	158	18	17	22	7	13
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2033	283	191	22	20	26	8	16

Leesburg International Airport Interim ALP Update

Forecasts of Aviation Demand

- Operational Fleet Mix

Forecast of Operational Fleet Mix							
Year	Total Ops.	Single-Engine	Multi-Engine	Jet	Helo.	Exp.	Amphib.
2013 estimate		74.35%	16.00%	8.02%	0.70%	.30%	0.63%
Based on TAF							
2018	**57,870**	43,026	9,259	4,641	405	174	365
2023	**59,393**	44,159	9,503	4,763	416	178	374
2033	**62,675**	46,599	10,028	5,027	439	188	395
Based on FASP							
2018	**58,452**	43,459	9,352	4,688	409	175	368
2023	**62,845**	46,725	10,055	5,040	440	189	396
2033	**72,624**	53,996	11,620	5,824	508	218	458

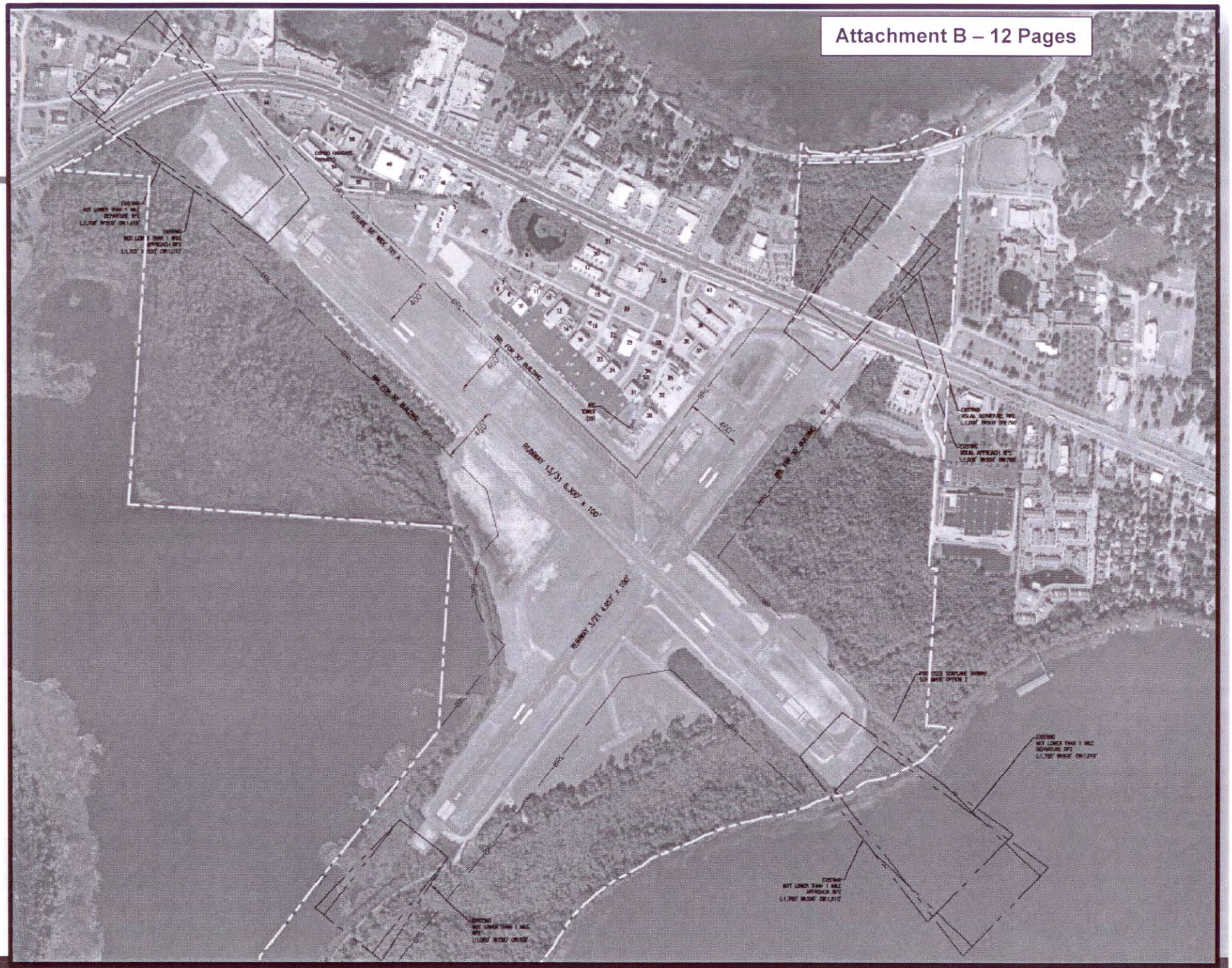
Leesburg International Airport Interim ALP Update

Forecasts of Aviation Demand

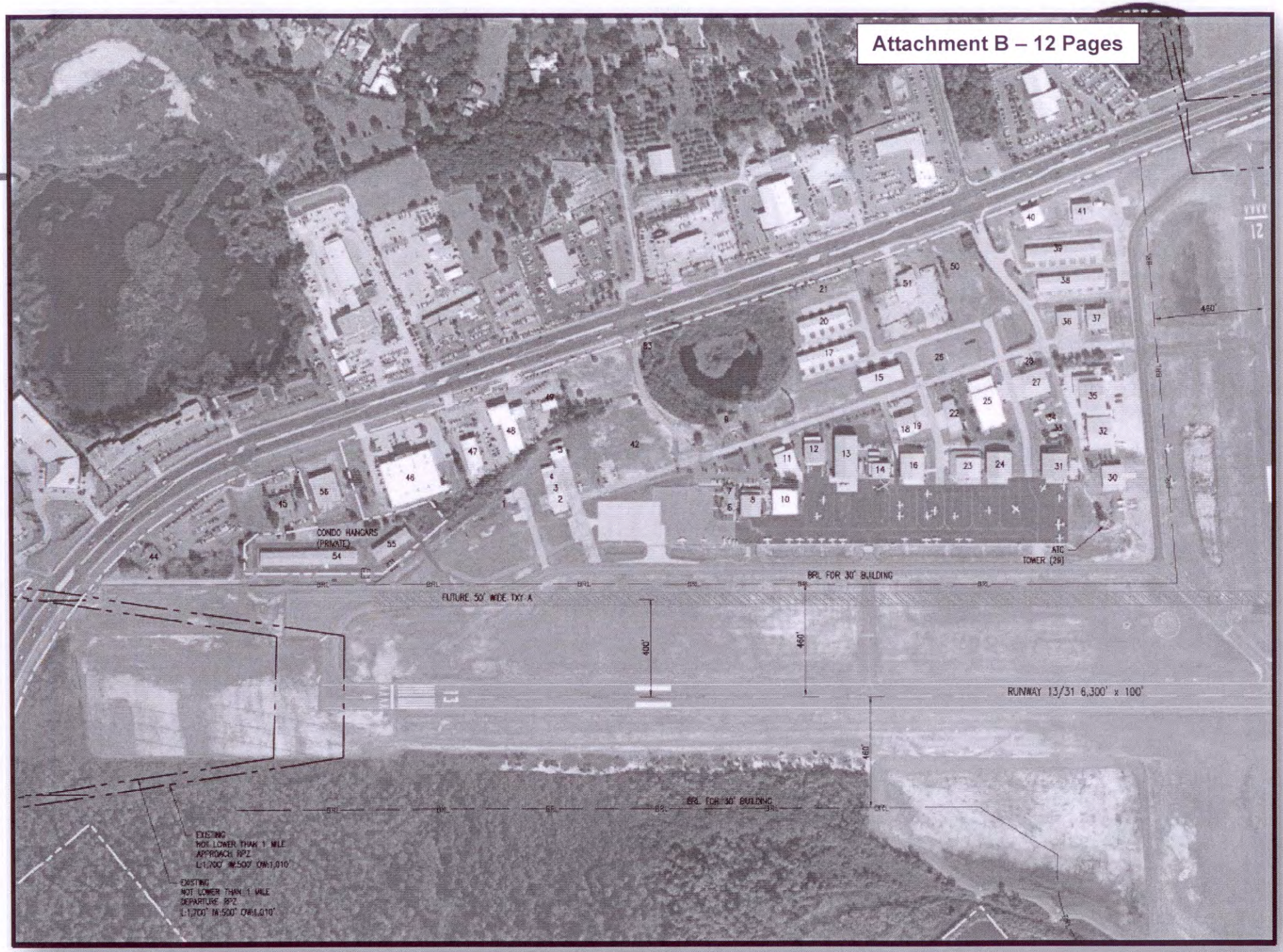
- **Consolidated Forecast Summary**

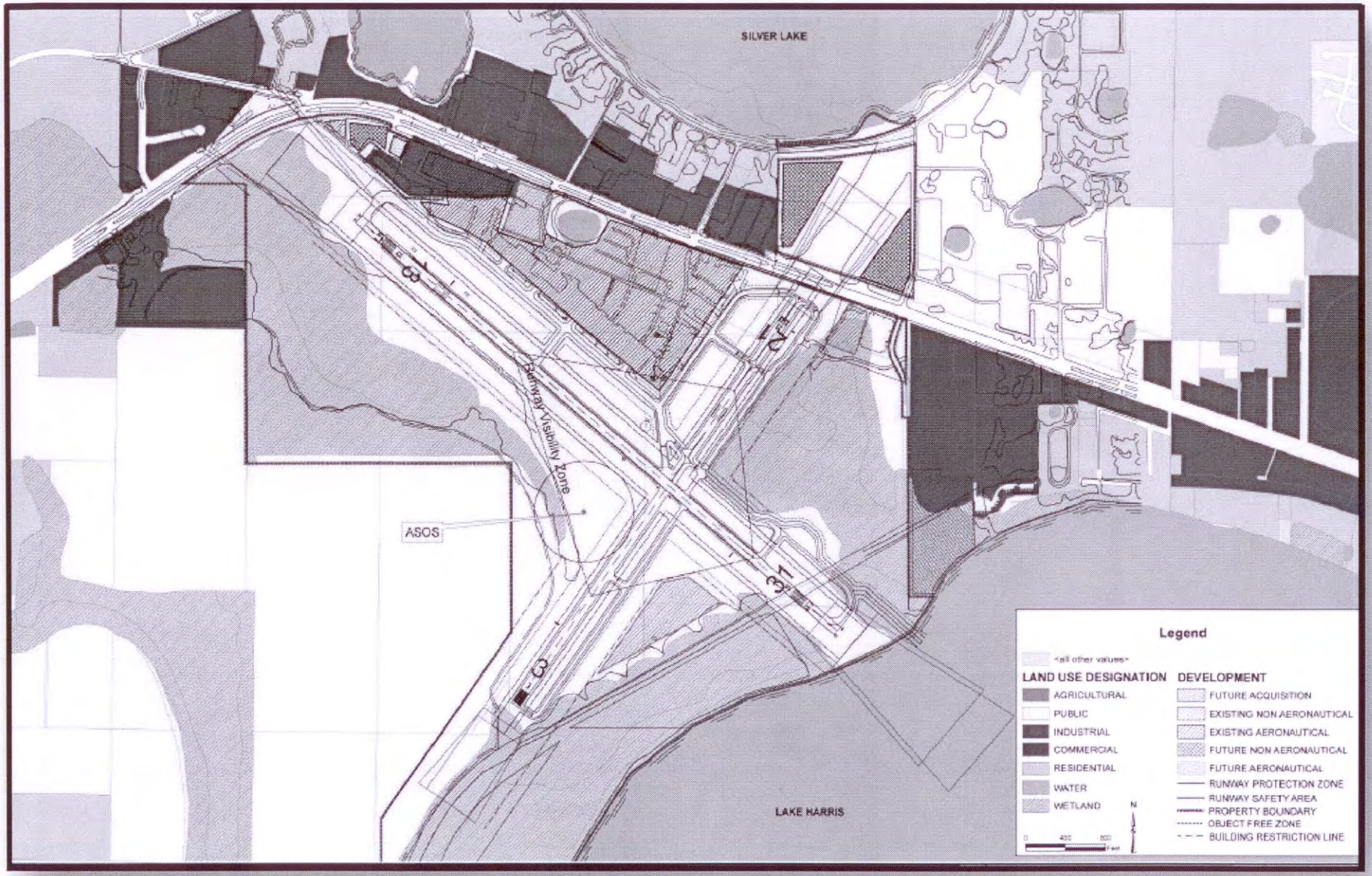
	2013	2018			2023			2033		
		TAF	FASP	Avg.	TAF	FASP	Avg.	TAF	FASP	Avg.
Based Aircraft										
Single-Engine	80	79	158	119	88	168	128	108	191	150
Multi-Engine	26	18	18	18	18	20	19	18	22	20
Jet	10	1	17	9	1	18	10	1	20	11
Helicopter	13	1	22	12	1	23	12	1	26	14
Experimental	4	0	7	4	0	7	4	0	8	4
Amphibious	8	0	13	7	0	14	7	0	16	8
Total	**141**	**99**	**235**	**167**	**108**	**250**	**179**	**128**	**283**	**206**
Annual Operations										
Local	32,373	29,837	34,329		31,360	36,909		34,642	42,652	
Itinerant	22,153	27,766	23,924		27,766	25,722		27,766	29,725	
Military	186	267	199		267	214		267	247	
Total	**54,712**	**57,870**	**58,452**		**59,393**	**62,845**		**62,675**	**72,624**	

Attachment B – 12 Pages



Attachment B – 12 Pages



Attachment B – 12 Pages

Leesburg International Airport Interim ALP Update