



St. Lucie County International Airport (FPR)

*Master Plan Update
Technical Advisory Committee (TAC)
Meeting #2
April 28, 2009*



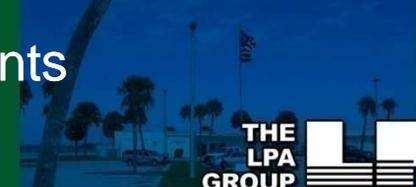


Master Plan Status

- ✓ Draft Working Paper 1 submitted
- ✓ Aviation Activity Forecasts – FAA approved
- ✓ Tenant surveys received
- ✓ TAC/public comments received/addressing
 - ▶ Study reports, presentations, meeting information, FAQs, and comment form available on airport website – www.stlucieco.gov/airport_masterplan



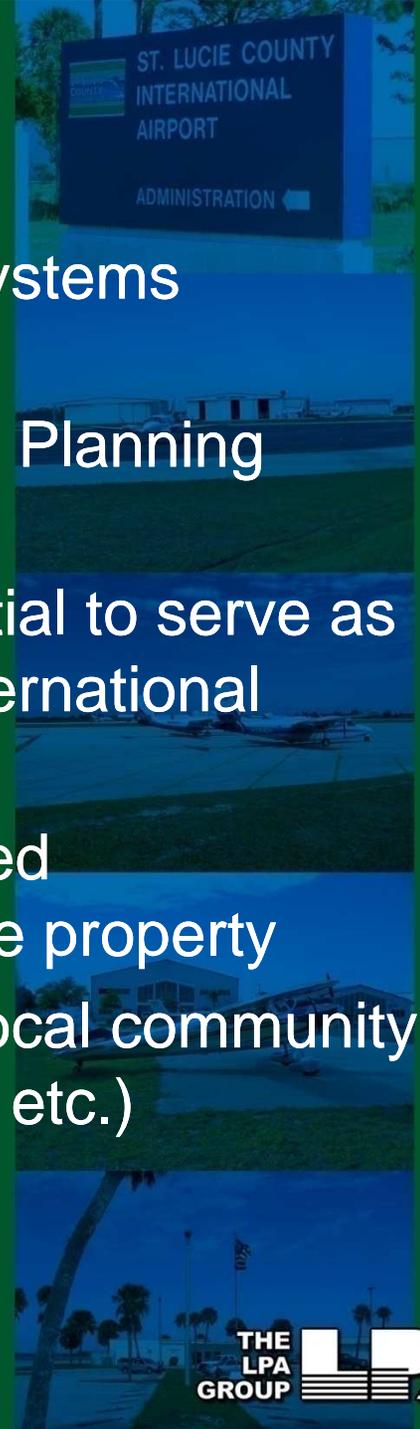
- Evaluate current and future airport capacity
- Identify existing and future critical aircraft
- Identify existing and future facility requirements





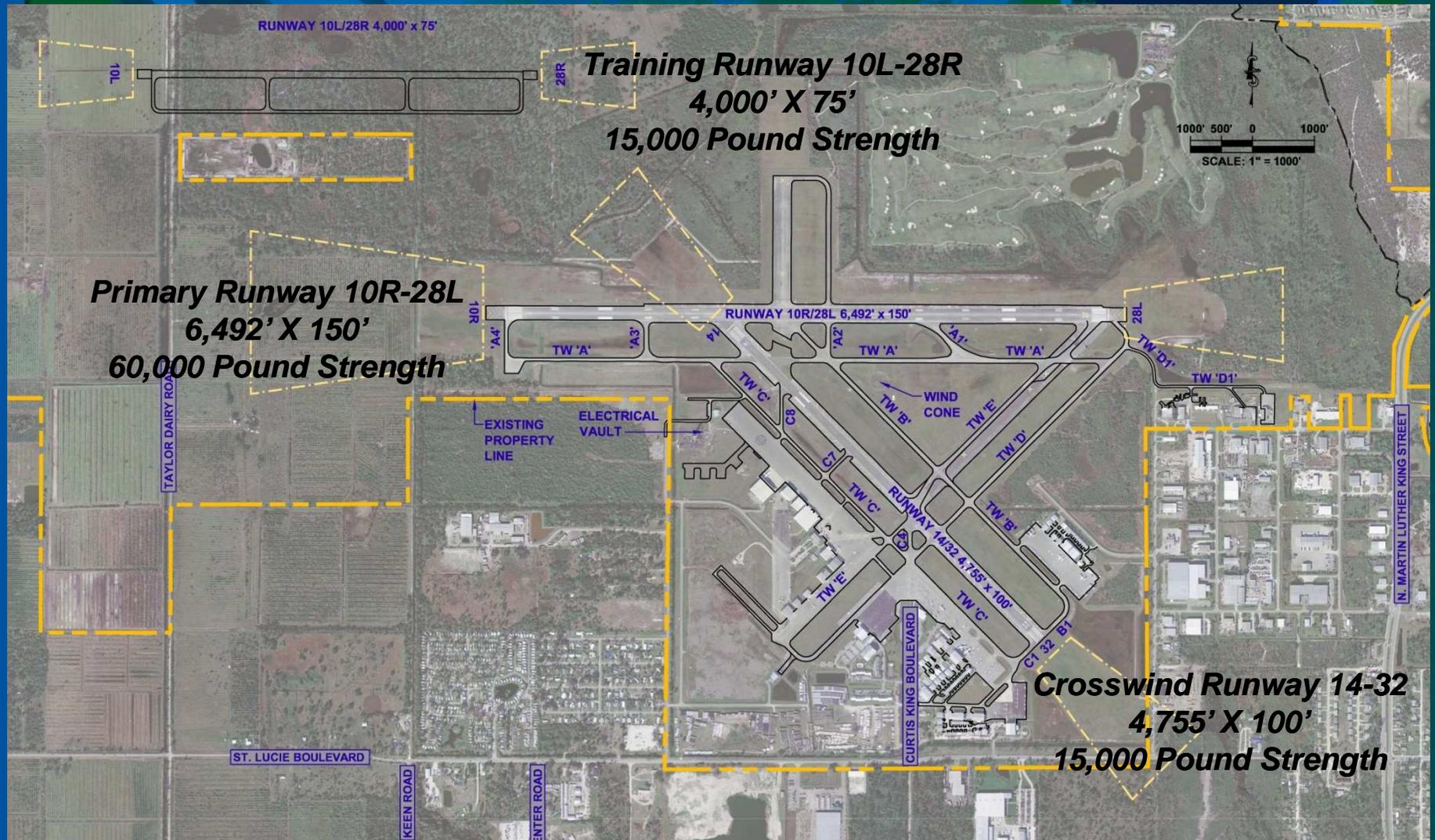
Airport Role

- ▶ FAA National Plan of Integrated Airport Systems (NPIAS) “general aviation airport”
- ▶ FDOT Continuing Florida Aviation System Planning Process (CFASPP) “community airport”
- ▶ Discussions of commercial service/ potential to serve as a reliever airport for West Palm Beach International Airport (PBI)
- ▶ Numerous aviation and non-aviation related opportunities for developing the 3,660 acre property
- ▶ Provides a significant contribution to the local community (jobs, air transportation, emergency relief, etc.)



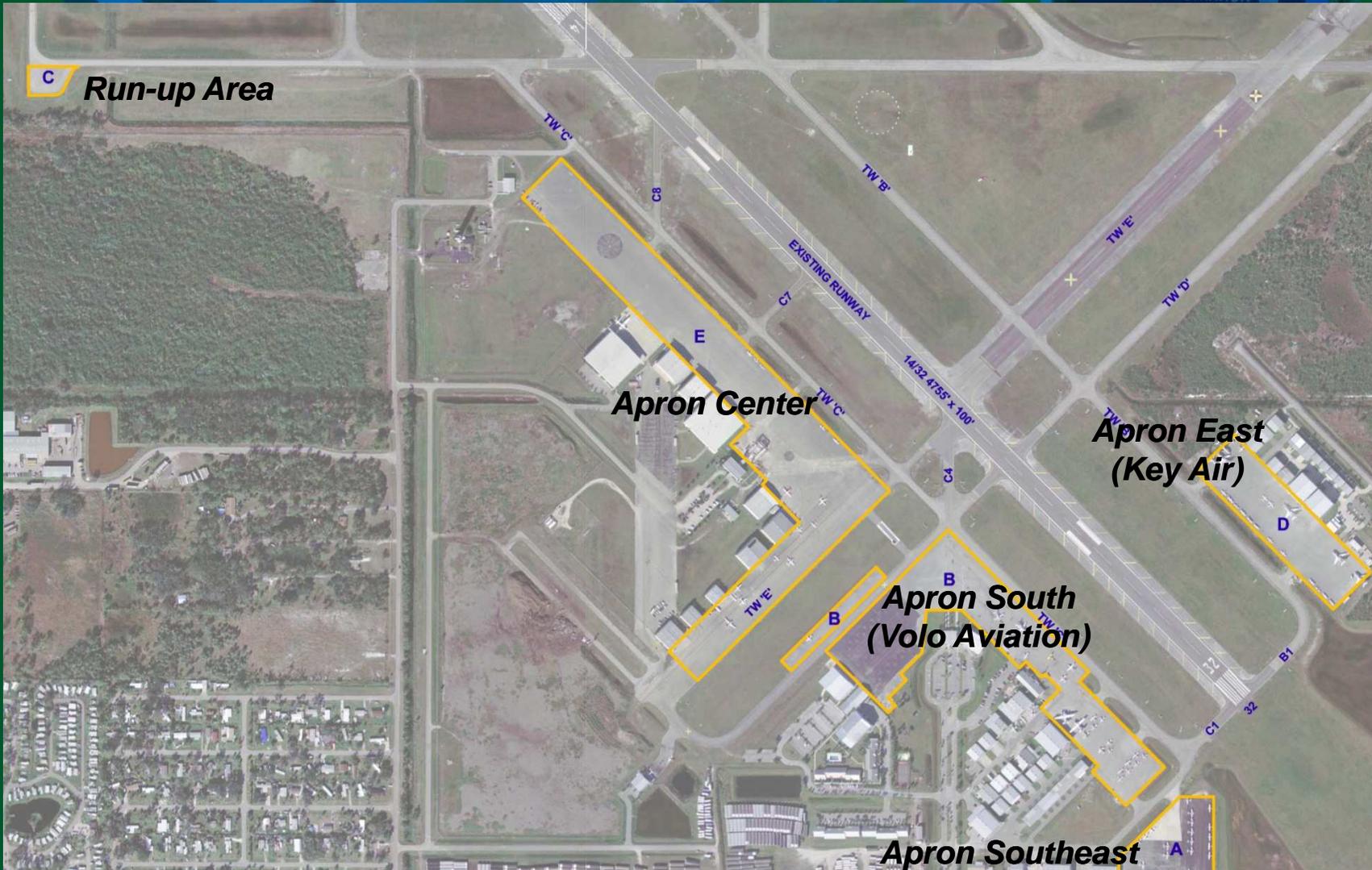


Existing Airfield Layout





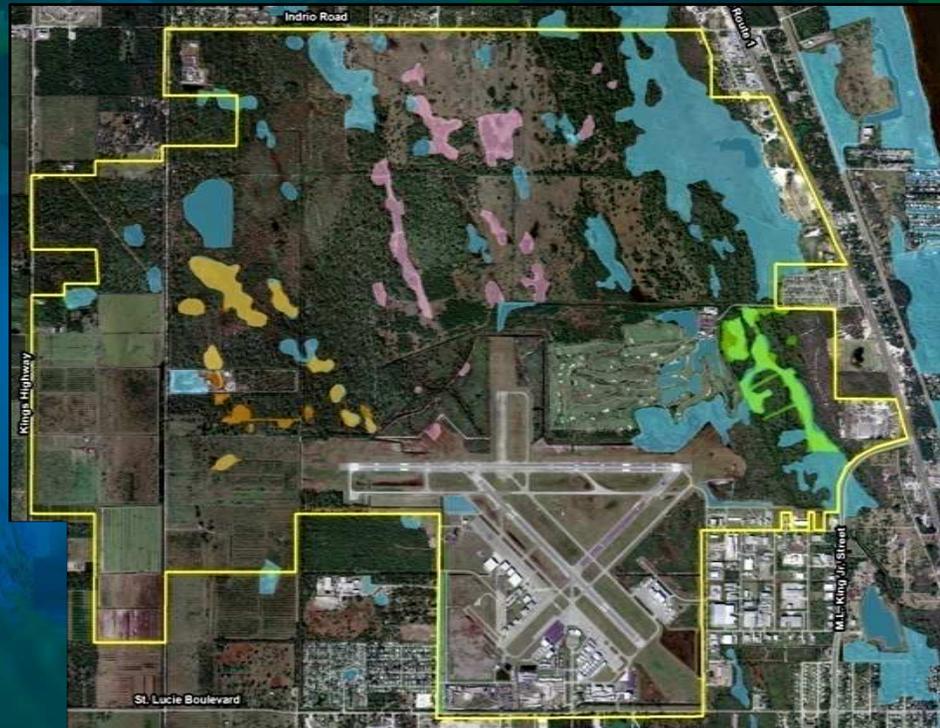
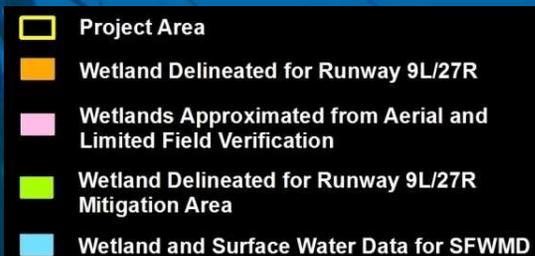
Aprons & Fixed Base Operators (FBOs)





Natural Features Inventory

- ▶ Identifies existing natural features which may impact future development including:
 - ▶ Archaeological Resources
 - ▶ Biotic Communities
 - ▶ Protected Species
 - ▶ Wetlands & Floodplains





Forecasts of Aviation Activity

- ▶ Develop a realistic assessment of market conditions and performance
- ▶ Address unique local conditions not fully considered in national or macro level forecast efforts
- ▶ Provide a benchmark for comparing current facilities against a reasonable estimate of future demand to define potential future facility needs



Hondajet



St. Lucie County
International Airport
on Florida's Treasure Coast





Factors and Opportunities

- ▶ Business and economic patterns
- ▶ Natural disasters (hurricanes)
- ▶ New technology (NextGen, VLJs, etc.)
- ▶ Global terrorism and war
- ▶ Fuel prices, mergers, bankruptcies, and general economic climate (corporate jet stigma)
- ▶ Shifts in commercial and GA activity
- ▶ Security and safety requirements (Large Aircraft Security Program)
- ▶ Green technology, etc.
- ▶ New runway and potential for future development





Airspace & NextGen

- ▶ FPR – Class D Airspace – surrounds towered airports from surface to 2,500 feet above mean sea level (AMSL)
- ▶ Tower open daily from 7:00 a.m. to 9:00 p.m.
- ▶ No indication of airspace constraints
- ▶ Further implementation of FAA Next Generation Air Transportation System (NextGen) should reduce congestion in Florida airspace
- ▶ <http://www.faa.gov/about/initiatives/nextgen/nextgenvideos/>



NextGen in 2018: Operating in the Mid-Term



By 2018, NextGen is expected to offer operational, economic, and environmental benefits while increasing safety throughout all phases of flight.

FAA NextGen Implementation Plan 2009





Forecasting Methods

- ▶ Socioeconomic Forecasts
- ▶ Regression Analysis
- ▶ FAA Terminal Area Forecast (TAF)
- ▶ 2002 Master Plan Update
- ▶ 2005 Noise Study Update
- ▶ 2004 Florida Aviation System Plan (FASP)
- ▶ FAA Aerospace Forecasts (2008-2025)
- ▶ Operations to Based Aircraft (OPBA) Ratio





Forecast Highlights

- ▶ Modest projections of operations and based aircraft
- ▶ Consistent with FAA Terminal Area Forecasts (TAF)
- ▶ Assumed growth based on new runway, available property, FBO development plans, and anticipated trends
- ▶ Recommended forecasts incorporate local, state, and national trends
- ▶ FAA approval has been granted





Forecast Summary vs FAA TAF

Total Operations

Year	FAA TAF (Adjusted)	Low/Average	Deviation From TAF	Medium/Composite SELECTED	Deviation From TAF	High/Average	Deviation From TAF
2008	160,277	160,277	0.00%	160,277	0.00%	160,277	0.00%
10% Deviation Acceptable within 5-Year Period							
2009	162,380	162,048	-0.20%	163,280	0.55%	165,129	1.90%
2013	171,089	169,451	-0.96%	176,111	2.94%	186,100	9.73%
15% Deviation Acceptable within 10-Year Period							
2018	182,677	179,536	-1.72%	194,871	6.67%	217,873	20.99%
No FAA Requirement for Last 10-Years							
2023	195,101	190,380	-2.42%	217,207	11.33%	257,446	34.38%
2028	N/A	202,219	N/A	243,599	N/A	305,668	N/A





Operations Forecast by Type



**TABLE 3-26
OPERATIONS FLEET MIX FORECAST**

Year	Single-Engine		Multi-Engine		Turboprop		Jet		Helicopter		Total	
	Aircraft	% Total	Aircraft	% Total	Aircraft	% Total	Aircraft	% Total	Aircraft	% Total	Aircraft	% Total
2008	116,201	72.50%	28,962	18.07%	5,900	3.68%	3,375	2.11%	5,840	3.64%	160,277	100.00%
2009	118,845	72.79%	28,539	17.48%	5,984	3.67%	3,785	2.32%	6,126	3.75%	163,280	100.00%
2010	121,497	73.03%	28,123	16.90%	6,070	3.65%	4,246	2.55%	6,427	3.86%	166,363	100.00%
2011	124,568	73.48%	27,608	16.29%	6,142	3.62%	4,589	2.71%	6,621	3.91%	169,528	100.00%
2012	127,679	73.90%	27,102	15.69%	6,214	3.60%	4,960	2.87%	6,820	3.95%	172,776	100.00%
2013	130,831	74.29%	26,606	15.11%	6,287	3.57%	5,361	3.04%	7,026	3.99%	176,111	100.00%
2014	134,137	74.67%	26,118	14.54%	6,361	3.54%	5,795	3.23%	7,238	4.03%	179,649	100.00%
2015	137,495	75.01%	25,640	13.99%	6,436	3.51%	6,263	3.42%	7,456	4.07%	183,291	100.00%
2016	140,906	75.33%	25,170	13.46%	6,512	3.48%	6,770	3.62%	7,681	4.11%	187,039	100.00%
2017	144,370	75.63%	24,709	12.94%	6,589	3.45%	7,317	3.83%	7,913	4.14%	190,898	100.00%
2018	147,887	75.89%	24,257	12.45%	6,667	3.42%	7,909	4.06%	8,151	4.18%	194,871	100.00%
2019	151,548	76.14%	23,812	11.96%	6,745	3.39%	8,549	4.29%	8,397	4.22%	199,051	100.00%
2020	155,279	76.35%	23,376	11.49%	6,825	3.36%	9,240	4.54%	8,650	4.25%	203,369	100.00%
2021	159,080	76.54%	22,948	11.04%	6,905	3.32%	9,987	4.81%	8,911	4.29%	207,831	100.00%
2022	162,953	76.70%	22,528	10.60%	6,986	3.29%	10,795	5.08%	9,180	4.32%	212,441	100.00%
2023	166,899	76.84%	22,115	10.18%	7,069	3.25%	11,668	5.37%	9,457	4.35%	217,207	100.00%
2024	170,919	76.94%	21,710	9.77%	7,152	3.22%	12,611	5.68%	9,742	4.39%	222,134	100.00%
2025	175,015	77.02%	21,312	9.38%	7,236	3.18%	13,631	6.00%	10,035	4.42%	227,230	100.00%
2026	179,186	77.07%	20,922	9.00%	7,322	3.15%	14,733	6.34%	10,338	4.45%	232,501	100.00%
2027	183,434	77.09%	20,539	8.63%	7,408	3.11%	15,924	6.69%	10,650	4.48%	237,954	100.00%
2028	187,758	77.08%	20,162	8.28%	7,495	3.08%	17,212	7.07%	10,971	4.50%	243,599	100.00%
AAGR 2008-2028	2.43%		-1.79%		1.20%		8.49%		3.20%		2.12%	
Change 2008-2028	61.58%		-30.38%		27.05%		409.99%		87.86%		51.99%	
FAA Aerospace AAGR 2007-2010	N/A-Remainder		-1.50%		1.40%		12.20%		4.90%		N/A	
FAA Aerospace AAGR 2010-2020	N/A-Remainder		-1.80%		1.20%		8.10%		3.00%		N/A	



Forecast Summary vs FAA TAF

Based Aircraft

Year	FAA TAF (Adjusted)	Low/Average	Deviation From TAF	Medium/Composite SELECTED	Deviation From TAF	High/Average	Deviation From TAF
2008	211	211	0.00%	211	0.00%	211	0.00%
10% Deviation Acceptable within 5-Year Period							
2009	216	214	-0.78%	215	-0.36%	217	0.63%
2013	237	228	-3.80%	233	-1.69%	245	3.21%
15% Deviation Acceptable within 10-Year Period							
2018	267	248	-7.38%	260	-2.86%	288	7.69%
No FAA Requirement for Last 10-Years							
2023	301	269	-10.73%	291	-3.39%	342	13.74%
2028	N/A	292	N/A	327	N/A	410	N/A





Based Aircraft Forecast by Type

**TABLE 3-25
BASED AIRCRAFT FLEET MIX FORECAST**

Year	Single-Engine		Multi-Engine		Turboprop		Jet		Helicopter		Total	
	Aircraft	% Total	Aircraft	% Total	Aircraft	% Total	Aircraft	% Total	Aircraft	% Total	Aircraft	% Total
2008	122	57.82%	59	27.96%	12	5.69%	14	6.64%	4	1.90%	211	100.00%
2009	125	57.89%	59	27.41%	12	5.66%	15	7.08%	4	1.96%	215	100.00%
2010	127	57.93%	59	26.86%	12	5.63%	17	7.56%	4	2.02%	220	100.00%
2011	130	58.19%	59	26.32%	13	5.61%	18	7.84%	5	2.04%	224	100.00%
2012	134	58.44%	59	25.79%	13	5.59%	19	8.13%	5	2.06%	229	100.00%
2013	137	58.67%	59	25.27%	13	5.57%	20	8.42%	5	2.08%	233	100.00%
2014	140	58.90%	59	24.75%	13	5.54%	21	8.72%	5	2.09%	238	100.00%
2015	144	59.12%	59	24.23%	13	5.52%	22	9.03%	5	2.11%	244	100.00%
2016	148	59.31%	59	23.72%	14	5.49%	23	9.35%	5	2.13%	249	100.00%
2017	151	59.50%	59	23.21%	14	5.46%	25	9.68%	5	2.15%	254	100.00%
2018	155	59.66%	59	22.72%	14	5.44%	26	10.02%	6	2.17%	260	100.00%
2019	159	59.83%	59	22.22%	14	5.41%	28	10.36%	6	2.18%	266	100.00%
2020	163	59.98%	59	21.73%	15	5.37%	29	10.72%	6	2.20%	272	100.00%
2021	167	60.12%	59	21.24%	15	5.34%	31	11.08%	6	2.21%	278	100.00%
2022	171	60.24%	59	20.76%	15	5.31%	33	11.45%	6	2.23%	284	100.00%
2023	175	60.35%	59	20.29%	15	5.28%	34	11.84%	7	2.24%	291	100.00%
2024	180	60.44%	59	19.82%	16	5.24%	36	12.23%	7	2.26%	298	100.00%
2025	184	60.52%	59	19.36%	16	5.20%	39	12.64%	7	2.27%	305	100.00%
2026	189	60.58%	59	18.91%	16	5.17%	41	13.05%	7	2.29%	312	100.00%
2027	194	60.63%	59	18.46%	16	5.13%	43	13.48%	7	2.30%	320	100.00%
2028	199	60.66%	59	18.02%	17	5.09%	46	13.91%	8	2.31%	327	100.00%
AAGR 2008-2028	2.47%		0.00%		1.66%		6.08%		3.24%		2.22%	
Change 2008-2028	62.76%		0.00%		38.87%		225.34%		89.21%		55.14%	
FAA Aerospace AAGR 2007-2010	N/A-Remainder		N/A-Stable		1.50%		8.90%		5.30%		N/A	
FAA Aerospace AAGR 2010-2020	N/A-Remainder		N/A-Stable		1.70%		5.80%		3.00%		N/A	





Forecasts of Aviation Activity

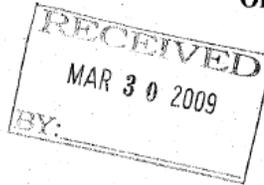


U.S. Department
of Transportation
**Federal Aviation
Administration**

ORLANDO AIRPORTS DISTRICT OFFICE

5950 Hazeltine National Dr., Suite 400
Orlando, Florida 32822-5003

Phone: (407) 812-6331 Fax: (407) 812-6978



March 27, 2009

Ms. Diana Lewis, AAE
Airport Director
St. Lucie County International Airport
3000 Curtis King Blvd.
Ft. Pierce, FL 34946

Dear Ms. Lewis,

RE: St. Lucie County International Airport (FPR), Fort Pierce, Florida
Approval of Airport Master Plan Forecast

This letter responds to the Airport Master Plan forecast forwarded under your consultant's March 13, 2009 letter of transmittal. The forecasts depicted in Table 3-29, on page 3-55 of Chapter 3, Forecasts of Aviation Activity (as attached,) are found to be consistent with the Federal Aviation Administration (FAA) Terminal Area Forecast (TAF) dated December 2008. Therefore, these forecasts are approved for use in your on-going master planning efforts.

If you have any questions, please feel free to contact me at (407) 812-6331, ext. 122.

Sincerely,

Original Signed By

Rebecca R. Henry
Planning Specialist



St. Lucie County
International Airport
on Florida's Treasure Coast

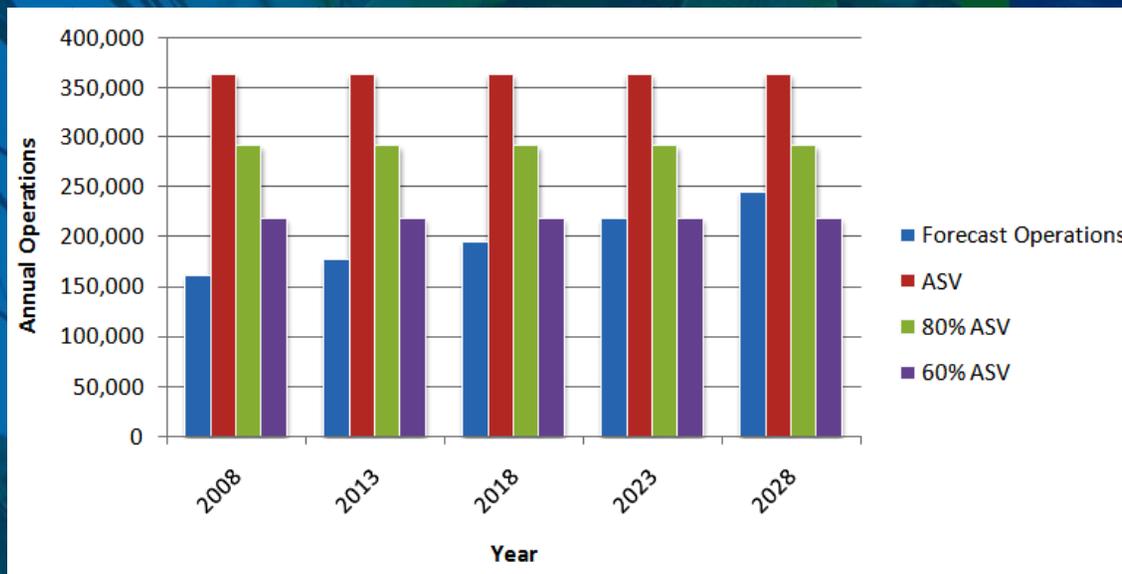




Airfield Capacity



Year	Forecast Annual Operations	Annual Capacity (3 Runway)	%Annual Capacity	Forecast Hourly Operations	Hourly Capacity (3 Runway)	%Hourly Capacity
2008	160,277	363,169	44.13%	104	236	43.99%
2013	176,111	363,169	48.49%	114	236	48.33%
2018	194,871	363,169	53.66%	126	236	53.48%
2023	217,207	363,169	59.81%	140	236	59.61%
2028	243,599	363,169	67.08%	158	236	66.86%



Capacity improvements may be needed in later years of the planning period (additional taxiways, aircraft parking areas, etc.)





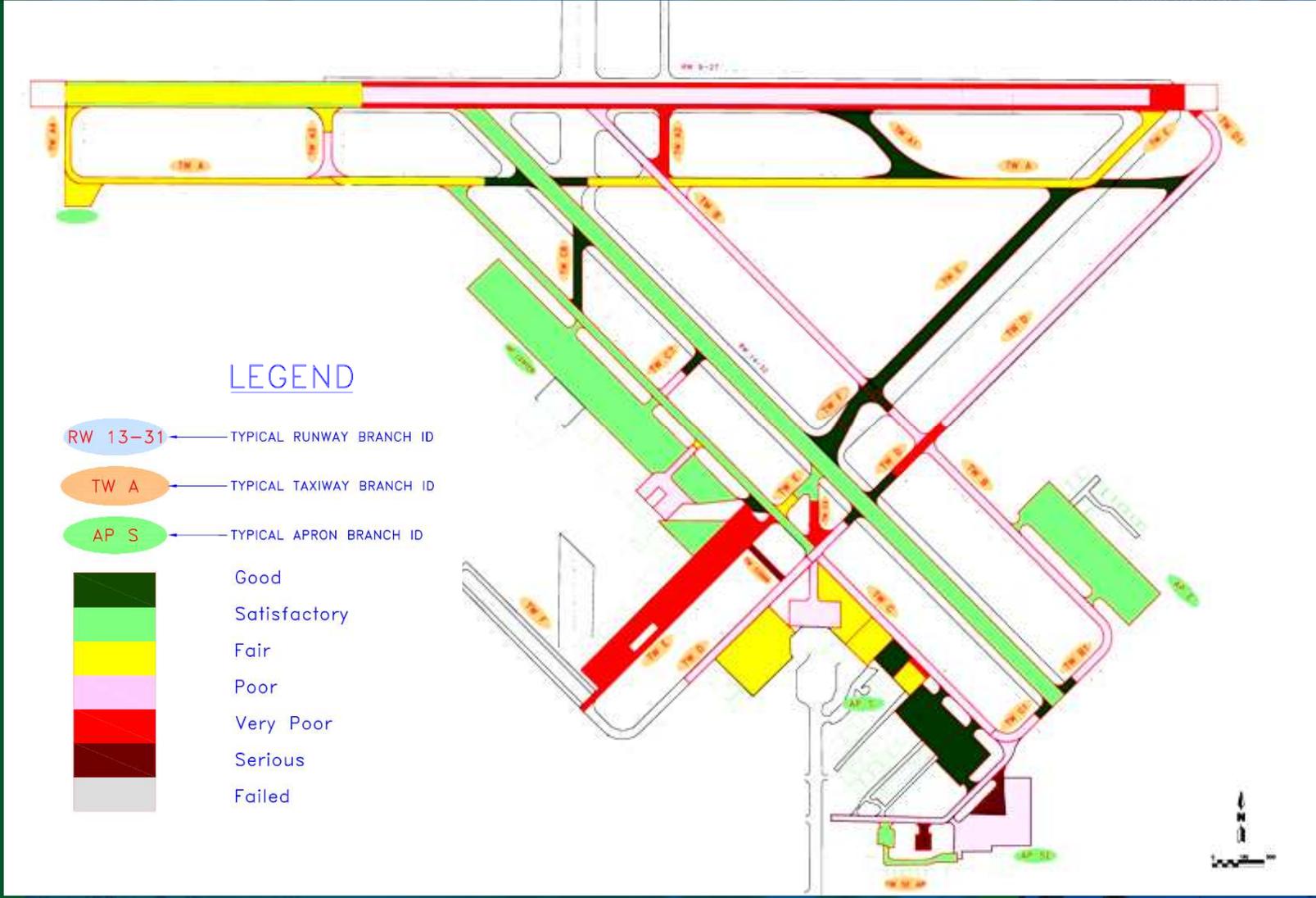
Working Paper I Comments

- *Runway 10R-28L Pavement Strength ($\geq 85,000$ lbs) and Length*
- *Viability of Providing Commercial Service (Part 139)*
 - ▶ *Rehabilitate Taxiway B*
 - ▶ *ARFF Antenna and impact on approaches to Runway 28L*
 - ▶ *Runway 10L-28R Visual Approach Aids*
 - ▶ *Impact of hurricanes and high insurance premiums on operations*
 - ▶ *Impacts of housing foreclosures, job loss, negative population growth, etc.*
 - ▶ *Increased bird population and impact on aviation*
 - ▶ *Develop facilities to attract additional jobs and population to the county.*
 - ▶ *Viability of FPR attracting heavy cargo (Fedex and UPS) and Commercial Operators*





Pavement Condition



2007 Condition Map





Runway Pavement Strength

- ▶ Many tenants have indicated a desire for increased pavement strength on Runway 9-27 (10R-28L)
- ▶ FAA requires an environmental evaluation related to potential noise impacts
- ▶ Funding may not be available for strengthening and remarking
- ▶ Review of previous activity is being conducted as part of this Master Plan – need support letters with estimates of future activity



Gulfstream G500 – Max 85,100 Pounds



Critical Aircraft



COMMON BUSINESS JETS

<i>Aircraft</i>	<i>ARC Code</i>	<i>MTOW</i>	<i>ISA Takeoff Length</i>	<i>ISA Landing Length</i>
<i>Falcon 7X</i>	<i>B-III</i>	<i>69,000</i>	<i>5,505</i>	<i>2,262</i>
<i>Gulfstream III</i>	<i>C-II</i>	<i>70,200</i>	<i>5,110</i>	<i>3,180</i>
<i>Gulfstream 350</i>	<i>D-II</i>	<i>70,900</i>	<i>5,050</i>	<i>3,260</i>
<i>Gulfstream IV-SP</i>	<i>D-II</i>	<i>75,000</i>	<i>5,450</i>	<i>3,190</i>
<i>Gulfstream V</i>	<i>C-III</i>	<i>90,900</i>	<i>6,110</i>	<i>2,760</i>
<i>Gulfstream 550</i>	<i>C-III</i>	<i>91,400</i>	<i>5,910</i>	<i>2,770</i>
<i>Global Express XRS</i>	<i>B-III</i>	<i>98,250</i>	<i>6,190</i>	<i>2,670</i>
<i>Global 5000</i>	<i>B-III</i>	<i>87,950</i>	<i>5,000</i>	<i>2,670</i>
<i>Boeing Business Jet 2</i>	<i>C-III</i>	<i>174,200</i>	<i>6,950</i>	<i>2,485</i>
<i>Douglas DC-3 (Turboprop)</i>	<i>A-III</i>	<i>25,200</i>	<i>N/A</i>	<i>N/A</i>
<i>Learjet 45</i>	<i>C-I</i>	<i>20,750</i>	<i>4,405</i>	<i>2,660</i>





Treasure Coast Public Airports

Airport (FAA Identifier)	<u>St. Lucie (FPR)</u>	<u>Vero Beach (VRB)</u>	<u>Witham (SUA)</u>	<u>Okeechobee (OBE)</u>	<u>Sebastian (X26)</u>	<u>Indiantown (X58)</u>	<u>New Hibiscus (X52)</u>
City	Fort Pierce	Vero Beach	Stuart	Okeechobee	Sebastian	Indiantown	Vero Beach
County	St. Lucie	Indian River	Martin	Okeechobee	Indian River	Martin	Indian River
County Pop. (2008)	268,691	134,987	147,642	40,752	134,987	147,642	134,987
NM from FPR	N/A	10 NM	20.4 NM	29.1 NM	20.3 NM	27.7 NM	11.8 NM
Acreage	3,660	1,707	739	1,060	626	600	90
Tower	Yes	Yes	Yes	No	No	No	No
Longest Runway	6,492 Feet	7,314 Feet	5,826 Feet	5,000 Feet	4,024 Feet	6,300 Feet (Turf)	3,120 Feet (Turf)
Pavement Strength (lbs)	60,000 DW	115,000 DW	105,000 DW	40,000 SW	22,000 SW	NA	NA
Customs Facility	Yes	No	No	No	No	No	No
NPIAS Future Service Level	GA	GA	GA	GA	GA	N/A	N/A
NPIAS Dev. Cost (2009-2013)	\$23,173,608	\$19,190,000	\$40,947,527	\$1,489,322	\$6,082,410	N/A	N/A
FASP 2025 Future Service Level	Commercial	Commercial	Community	Community	Community	Community	Community
Commercial Certification	No	Yes	No	No	No	No	No
NM from PBI	50.8 NM	60.8 NM	30.7 NM	53.4 NM	71.1 NM	28.2 NM	61.4 NM





Economic Opportunity

- ▶ Grand Bahamas Chamber of Commerce interested in partnership with St. Lucie County
- ▶ Potential commercial airline service between FPR and Bahamas (use of modern Q-300 50+ seat turboprops)
- ▶ Would be beneficial for the local economy (job creation, tourism revenue, positive airport image, etc.), potentially encouraging future business investments
- ▶ Some upgrades to airport terminal (administration building) and other facilities needed to accommodate commercial service



**Bahama Tourism a
Key to our
Economic Recovery**

Airport part of plan





Commercial Aircraft



COMMON COMMERCIAL AIRCRAFT				
Aircraft	ARC Code	MTOW	ISA Takeoff Length	ISA Landing Length
Dash 8 Q300 (Turboprop)	B-III	43,000	3,870	3,415
CRJ 700 (Regional Jet)	C-II	72,750	5,130	5,090
CRJ 900 (Regional Jet)	C-II	80,500	5,833	5,235
Boeing 737-200 (Jet)	C-III	95,028	8,250	4,260
Boeing 737-800 (Jet)	C-III	174,200	7,900	5,450
Airbus A320-200 (Jet)	C-III	169,800	5,900	4,800







Working Paper I Comments

- ▶ *Runway 10R-28L Pavement Strength ($\geq 85,000$ lbs) and Length*
- ▶ *Viability of Providing Commercial Service (Part 139)*
- *Rehabilitate Taxiway B*
- *ARFF Antenna and impact on approaches to Runway 28L*
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- *Impact of hurricanes and high insurance premiums on operations*
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- *Increased bird population and impact on aviation*
- *Develop facilities to attract additional jobs and population to the county.*
- *Viability of FPR attracting heavy cargo (Fedex and UPS) and Commercial Operators*





Other Facility Requirements

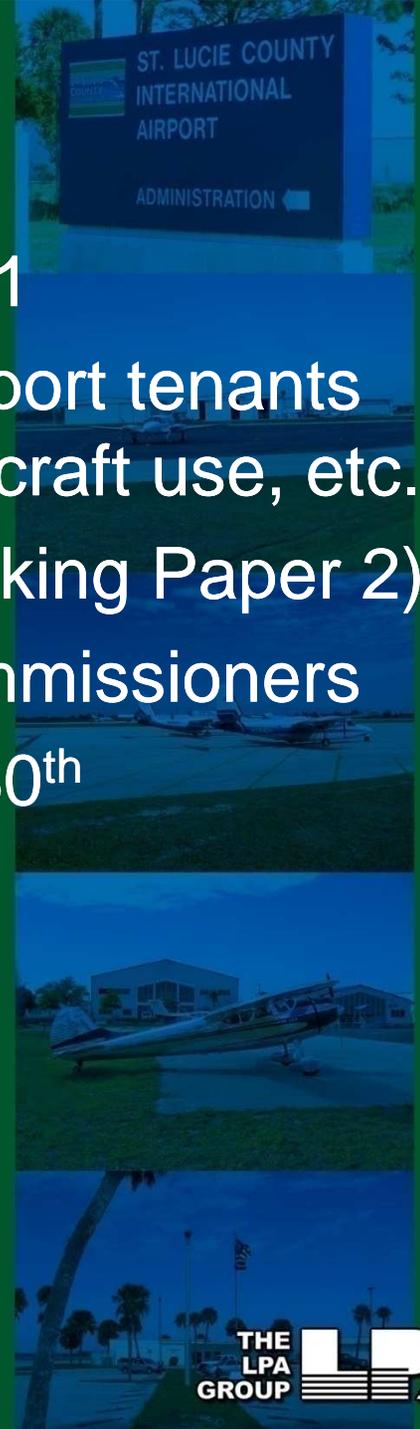
- ▶ Runways, taxiways/taxilanes, and aprons (length, width, size, and strength)
- ▶ Lighting and marking
- ▶ Navigational aids (electronic and visual)
- ▶ Security requirements
- ▶ Aircraft storage (tiedowns and hangars)
- ▶ FBO facilities
- ▶ Access and parking
- ▶ Property and land use
- ▶ Commercial passenger terminal
- ▶ Obstruction analysis (towers, trees, etc.)





Next Steps

- ▶ Collect comments on Working Paper 1
- ▶ Obtain additional information from airport tenants (development plans, needs, future aircraft use, etc.)
- ▶ Complete Facility Requirements (Working Paper 2)
- ▶ Provide Input to Board of County Commissioners
- ▶ Next TAC meeting – Tuesday, June 30th
 - ▶ Facility Requirements
 - ▶ Airport Alternative Development





Thank You

