

1. Discussion Objective:

Work Session Date: December 2, 2013

This item is on the work session agenda at the request of Council Member Raymond.

2. Submitter of Information:

X_ Council
_ Town Staff
_ Town Attorney

3. Estimated Time for this item:

TBD

5. Background:

Town Manager	Town Attorney	Finance Director	Public Works Director	Community Development Director	Parks & Recreation Director	Town Clerk
<i>Denny Stalder</i>						

Fort Myers Beach Over Flight Status – March to November 2013

Compiled by Tom and Annie Babcock

Background

It has been 10 months since the Part 150 Noise Study Recommendations were approved by the Board of Port Commissioners and forwarded to the FAA for comment and approval. P150 recommendations expected to bring improvement for the Town of Fort Myers Beach include:

- A. Keeping aircraft at or above 3,000 ft over Estero Island.
- B. Maximizing routing of aircraft over uninhabited Estero Bay rather than Fort Myers Beach.
- C. Establishing Runway 24 as the preferred runway from 10 PM to 6 AM to route aircraft away from Fort Myers Beach.
- D. Increasing altitude for early morning arrivals.
- E. Promoting use of RNAV optimized descent approach (OPA) to Runway 6 to reduce noise and improve aircraft efficiency.

A flight tracking system became operational in March 2013 and progress has been monitored. Data was collected for time segments from March 2013 to November 2013: (1) Tuesday and Wednesday, 3/26/13 and 3/27/13, (2) Saturday through Tuesday 6/8/13 to 6/11/13, (3) Saturday through Tuesday 9/7/13 to 9/10/13, (4) Saturday through Tuesday 10/26/13 to 10/29/13, and (5) Saturday through Tuesday 11/2/13 to 11/5/13. The results are compared in Appendix A. October 2013 data for late night arrivals, e.g. 10 PM to midnight, are shown in Appendix B. Data for the month of October 2013 and the first part of November 2013 for early morning FedEx and UPS arrivals are shown in Appendix C.

Observations

1. More aircraft may be flying at or above 3,000 ft over Estero Island than before the flight tracking system became operational, but on average about one-third of the aircraft still fly below 3,000 ft and 4% are flying below 2,000 ft.
 - a. Some aircraft are as low as 1,500 ft over Estero Island.
 - b. Low flying aircraft have been observed with their gear down over Estero Island.
2. The percentage of arrivals over uninhabited Estero Bay has not shown improvement over the timeframe studied.
 - a. The proposed new route using the SHFTY Approach over Estero Bay from the South continues to have limited use, e.g. less than 5% of the time.
 - b. The percentage of aircraft using the existing TYNEE Approach from the North fly over Estero Bay about 23% of the time.
 - c. On average Aircraft fly over Estero Island approximately 72 % of the time with 44% of the aircraft flying over a one-half mile wide path in the center of the Island.
3. There is no evidence to indicate that Runway 24 is being used as the preferred runway between 10 PM and 6 AM even when wind velocities are at or below 4 mph.
 - a. Aircraft arriving between 10 PM and midnight are flying over Estero Island 41% of the time. Some of these aircraft were as low as 2,400 ft.
 - b. Runway 24 was never used for early morning FedEx and UPS arrivals in October or early November 2013.

Controllers should again be allowed to release aircraft earlier in the SHFTY downwind approach to travel over uninhabited Estero Bay to land on Runway 6 without requiring the use of RNAV.

The P150 recommendation to reduce the number of over flights at night and early morning over Estero Island by making runway 24 the preferred runway from 10 PM to 6 AM is not happening. Data for October 2013 shows that Runway 24 was the preferred runway only 10% of the time, as required by wind direction and velocity. Runway 24 could have been the preferred runway 58% of the time. If Runway 24 does become the preferred runway orientation at night, as recommended by P150, the time should be extended to 7 AM to include early UPS arrivals as well as FedEx. Aircraft flying over Estero Island between the hours of 10 PM and 7 AM are considerably louder than the 45 decibels that disrupts sleep. Data for the "alternating runway" procedure being tested for nighttime arrivals could be an improvement over runway 6 being the preferred runway at night, but not as good as making runway 24 the preferred runway.

The P150 recommendation to increase the altitude of early morning aircraft arrivals is not being followed. In early November 2013, FedEx arrivals over Estero Island were under 3,000 ft 63% of the time and as low as 1,500 ft.

There are very few arrivals after midnight and before 6 AM, when Miami Center is controlling aircraft at RSW. However, there are indications that Miami Center may be handling aircraft differently than RSW controllers. For example, the FedEx arrival route and altitude before 6 AM is usually different than the UPS arrival route and altitude after 6 AM. Miami Center should be using the same policies and procedures as RSW controllers.

This summary is intended to be a status report. Until the final FAA approval of the P150 recommendations, air traffic controllers are encouraged to implement as many affecting Estero Island as possible. Data will be collected during peak season that usually runs from January through March in order to better establish trends. Arrivals increase significantly during season. Even if percentage performance of aircraft arriving on Runway 6 remains constant, a greater number of aircraft will be flying over Estero Island during season. This historical data will show if performance changes when Part 150 FAA approved recommendations are fully implemented.

4. were directed to Runway 6 and aircraft flying the SHFTY approach down the middle of the state were directed to Runway 24, referred to as the "Alternating Runway" procedure.
 - a. The average number of aircraft flying over Estero Island between 10 PM and midnight decreased by more than 50% per night when the "alternating runway" procedure was compared to when Runway 6 was the preferred runway.
 - b. Aircraft flying the SHFTY approach from the south over Estero Island were eliminated and an increased percentage of aircraft flying the TYNEE approach from the north flew over Estero Bay rather than Estero Island.
5. FedEx aircraft usually arrived before 6 AM and always landed on Runway 6 in October 2013.
 - a. FedEx flew over Estero Bay only 9% of the time.
 - b. 74% of the time FedEx flew over the north end of Estero Island, proceeded south along the coastline and turned east toward the airport over mid-island.
 - c. The number of FedEx aircraft below 3,000 ft jumped from 17% in October to 63% in early November.
 - d. Some were as low as 1,500 ft.
 - e. FedEx performance is significantly poorer than for other aircraft arrivals.
6. UPS aircraft usually arrived after 6 AM, but before 7 AM in October 2013.
 - a. UPS flew over the Estero Bay more often than the daily average for other aircrafts, e.g. 47% versus 27%.
 - b. UPS aircraft were frequently below 3000 feet over Estero Island and as low as 1,500 ft.
7. Optimized descent approach is not currently being utilized.
 - a. Most aircraft level off while still out over the Gulf and remain at a constant altitude over Estero Island.
 - b. Many aircraft turn over the Estero Island in order to align with the runway.
 - c. Almost all aircraft flying over Estero Island are under power and not gliding with power reduced.

Discussion

Progress toward implementation of Part 150 recommendations is slow and inconsistent.

Controllers' efforts may have aircraft flying higher over Estero Island, however, comparative data before March 2013 is not available. Too many aircraft are still flying below the Part 150 recommendation of 3,000 ft or above over Estero Island. Some are as low as 1,500 ft. The low flying aircraft arriving late at night and early morning are particular disruptive.

Aircraft are not using an optimized descent approach to Runway 6. Aircraft under power, even when higher, create more noise.

Part 150 recommends a charted visual approach to Runway 6 from the south over Estero Bay. It has not been implemented. The Estero Bay SHFTY approach procedure from the south is currently only being used by aircraft having RNAV navigation equipment. Even though four airlines have this capability, it is only used 3 to 4 times per day. A visual approach over Estero Bay is currently allowed on the TYNEE approach from the north without the requirement of RNAV. Aircraft currently arriving on Runway 24 from the south without RNAV are allowed to turn to the airport much sooner than currently allowed for aircraft arriving from the south to Runway 6. An Estero Bay approach procedure from the south was allowed when SHFTY was first implemented in 2008 and removed when residents of Estero complained. This change was not consistent with the stated goal to not make changes to the airspace that would adversely impact another community. A "railroad track" was created over the center of Estero Island and over flights were created over the south end of Estero Island where none existed before October 2008.

Appendix A. Arrivals on Runway 6

Total Percentage of Arrivals Flying over <u>Estero Bay</u> =	<u>34%</u>	<u>26%</u>	<u>26%</u>	<u>31%</u>	<u>20%</u>
	3/26/13- 3/27/13	6/8/13- 6/11/13	9/7/13- 9/10/13	10/26/13- 10/29/13	11/2/13- 11/5/13

Percentage Using TYNEE Approach from the North =

28% 21% 23% 26% 16%

Percentage Using SHFTY Approach from the South =

6% 5% 3% 5% 4%

Total Percentage of Arrivals Flying over Estero Island =

66% 74% 74% 69% 80%

Percentage flying over the center of the Island =
(From the bay side of Madera Rd to the bay side of
Avenida Pescadora - approximately 1/2 mile wide)

39% 53% 44% 41% 45%

Percentage flying over the north end of the Island =
(North of Madera Rd - approximately 3.7 miles wide)

2% 11% 15% 4% 12%

Percentage flying over the south end of the Island =
(South of Avenida Pescadora - approximately 2.7 miles wide)

25% 10% 15% 24% 23%

Percentage of Aircraft Flying Over Estero Island Under 3,000 ft =

54% 25% 34% 14% 30%

Percentage of Aircraft Flying Over Estero Island Under 2,000 ft =

0.4% 6% 9% 0.3% 4%

Appendix B. October 2013 Data - Late Night Arrivals (10 PM to Midnight)

Percentage of nights that Runway 6 was preferred runway = 42%

Percentage of nights that Runway 24 was preferred runway = 10%

Percentage of nights that controllers used an "alternating runway" = 48%
 procedure dependent on arrival route entering RSW airspace

	<u>Total</u>	<u>Runwy 6 Preferred</u>	<u>Alternating Runwy</u>
Total Percentage of Arrivals Flying over <u>Estero Bay</u> =	<u>59%</u>	<u>53%</u>	<u>68%</u>
Percentage Using <u>TYNEE</u> Approach from the <u>North</u> =	57%	50%	68%
Percentage Using <u>SHFTY</u> Approach from the <u>South</u> =	2%	3%	0%

Total Percentage of Arrivals Flying over Estero Island =

Percentage flying over the center of the Island =
 (From the bay side of Madera Rd to the bay side
 of Avenida Pescadora - approximately 1/2 mile wide)

Percentage flying over the north end of the Island =
 (North of Madera Rd - approximately 3.7 miles wide)

Percentage flying over the south end of the Island =
 (South of Avenida Pescadora - approximately 2.7 miles wide)

Average number of aircraft landing on Runway 6 per night =

Average number of aircraft flying over Estero Island per night =

7.2 3.7

3.4 1.2

Appendix C. October and November 2013 Data - Early Morning FedEx and UPA arrivals

<u>FedEx (FDX 1465) – Usual arrival time is before 6 AM</u>		
<u>Percentage of Arrivals Flying over Estero Bay =</u>	<u>10/1-10/31</u>	<u>11/1-11/9</u>
	9%	12%
<u>Percentage flying only over the center of the Island =</u> (From the bay side of Madera Rd to the bay side of Avenida Pescadora - approximately 1/2 mile wide)	13%	50%
<u>Percentage flying only over the north end of the Island =</u> (North of Madera Rd - approximately 3.7 miles wide)	4%	0%
<u>Percentage flying only over the south end of the Island =</u> (South of Avenida Pescadora - approximately 2.7 miles wide)	0%	0%
<u>Percentage flying over both the north end and the center of the Island =</u>	74%	38%
<u>Percentage of FedEx Aircraft Flying Over Estero Island Under 3,000 ft =</u>	17%	63%
<u>Percentage of FedEx Aircraft Flying Over Estero Island Under 2,000 ft =</u>	0%	37%
<u>UPS (UPS1348) – Usual arrival time is between 6 AM and 7 AM</u>		
<u>Percentage of Arrivals Flying over the Back Bay =</u>	47%	50%
<u>Percentage flying only over the center of the Island =</u> (From the bay side of Madera Rd to the bay side of Avenida Pescadora - approximately 1/2 mile wide)	26%	13%
<u>Percentage flying only over the north end of the Island =</u> (North of Madera Rd - approximately 3.7 miles wide)	11%	13%
<u>Percentage flying only over the south end of the Island =</u> (South of Avenida Pescadora - approximately 2.7 miles wide)	0%	24%
<u>Percentage flying over both the north end and the center of the Island =</u>	16%	0%
<u>Percentage of UPS Aircraft Flying Over Estero Island Under 3,000 ft =</u>	11%	38%
<u>Percentage of UPS Aircraft Flying Over Estero Island Under 2,000 ft =</u>	5%	0%

Aircraft Arrival Observations Impacting Estero Island - March to November 2013

By Tom and Annie Babcock

1. More aircraft may be flying at or above 3,000 ft over Estero Island than before the flight tracking system became operational, but on average about one-third of the aircraft still fly below 3,000 ft and 4% are flying below 2,000 ft.
 - a. Some aircraft are as low as 1,500 ft over Estero Island.
 - b. Low flying aircraft have been observed with their gear down over Estero Island.
2. The percentage of arrivals over uninhabited Estero Bay has not shown improvement over the timeframe studied.
 - a. The proposed new route using the SHFTY Approach over Estero Bay from the South continues to have limited use, e.g. less than 5% of the time.
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 - a. Aircraft arriving between 10 PM and midnight are flying over Estero Island 41% of the time. Some of these aircraft were as low as 2,400 ft.
 - b. Runway 24 was never used for early morning FedEx and UPS arrivals in October or early November 2013.
4. Controllers appeared to be testing late night runway changes where aircraft flying the TYNEE approach down the west coast of Florida were directed to Runway 6 and aircraft flying the SHFTY approach down the middle of the state were directed to Runway 24, referred to as the "Alternating Runway" procedure.
 - a. The average number of aircraft flying over Estero Island between 10 PM and midnight decreased by more than 50% per night when the "alternating runway" procedure was compared to when Runway 6 was the preferred runway.
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Lois Poff

From: tababo@netzero.net
Sent: Tuesday, November 12, 2013 11:03 AM
To: Terry Stewart
Cc: Lois Poff
Subject: Wednesday Aircraft Meeting
Attachments: Progress Summary Nov 2013.doc

Terry,

Thank you for meeting with us on short notice. We have been using the RSW flight tracking system to collect data since March 2013. There are some interesting observations that we would like to discuss with you and members of Town Council. A summary has been attached. We will bring copies of the data collected and some flight tracker printouts to the meeting.

Tom and Annie Babcock

Tom and Annie Babcock, tababo@netzero.net