



Martin County Airport / Witham Field Noise Compatibility Program Update

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Revised Addressing FAA Review Comments: May 31, 2013

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For Submission to:
Federal Aviation Administration (FAA)
Orlando Airport District Office

Prepared for:
Martin County, Florida

Prepared by:
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Hanson Professional Services Inc.
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CERTIFICATION

This is to certify the following:

- 1) the existing condition NEM (2010) representing conditions at the airport at the time of the submittal of the NCP (2012) to the FAA, and
- 2) the forecast condition NEM (2015) represents conditions at the airport at least 5 years into the future from the date of the submittal of the NCP (2017) to the FAA for approval.

By: _____
George M. Stokus, A.A.E.

Title: **Airport Manager**

Date: **August 16, 2013**

Airport Name: *Martin County Airport / Witham Field*
Airport Owner/Operator: Board of County Commissioners, Martin County, Florida
Address: 2011 SE Airport Road
Stuart, FL 34996

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Chapter 1

Introduction

Previous Noise Studies - In 2004 Martin County completed the first comprehensive Federal Aviation Regulation (FAR) Part 150 Noise and Land Use Compatibility Study for the airport. The study consisted of two elements: (1) the Noise Exposure Maps (NEMs) for current conditions 2002 and five-year forecast conditions 2007, and (2) a Noise Compatibility Program (NCP). The purpose of the NEMs was to define the limits of the existing and future noise contours resulting from aircraft operations at SUA utilizing a standardized methodology and system of noise metrics. The NEM document included a description of the airport layout, runway locations and flight tracks, illustrated aircraft related noise exposure in the form of noise contours, and identified the compatible and non-compatible land uses within each contour interval.

The 2004 Study presented DNL¹ noise contours for two (2) representative time frames (1) the year of submission of the NEM document to the FAA, which represented the existing conditions for the year 2002, and (2) the five-year forecast conditions for the year 2007.

The 2004 NCP included a list of actions the airport proprietor proposes to undertake to minimize the existing and the future noise/land use incompatibilities. Acceptance by the FAA of the NCP is a prerequisite to application for funding of implementation actions. It does not eliminate the need to formally address other environmental impacts of proposed actions pursuant to the requirements of the National Environmental Protection Policy Act (NEPA). FAR Part 150, Appendix B – *Noise Compatibility Programs*, Sec. B150.(b) states that the purpose of the NCP is to:

- “(1) To promote a planning process through which the airport operator can examine and analyze the noise impact created by the operation of an airport, as well as the costs and benefits associated with the various alternative noise reduction techniques, and the responsible impacted land use control jurisdictions can examine existing and future areas of noncompatibility and consider actions to reduce noncompatible uses;
- (2) To bring together through public participation, agency coordination, and overall cooperation, all interested parties with their respective authorities and obligations, thereby facilitating the creation of an agreed upon noise abatement plan especially suited to the individual airport location while at the same time not unduly affecting the national air transportation system; and
- (3) To develop comprehensive and implementable noise reduction techniques and land use controls which, to the maximum extent feasible, will confine severe aircraft noise impacts (DNL

¹ Part 150 requires that Part 150 Noise Exposure Maps describe the total aircraft-related noise exposure on the “average annual day” (which is mathematically equal to the total exposure over an entire year) using a measure called Day-Night Average Sound Level, DNL. The aircraft-related DNL is equal to the steady-state noise level that contains the same amount of noise energy as the actual time-varying aircraft-related noise over the year, with one important exception: the noise energy associated with aircraft operations at night (10 p.m. – 7 a.m.) is increased by a factor of 10; i.e., the noise from every night aircraft operation is treated the same as 10 equivalent daytime operations.

75 dBA and greater) to areas within the airport boundary and will establish and maintain compatible land uses in the areas affected by noise between the DNL 65 and 70 dBA contours.”

In accordance with FAR Part 150, Part B – *Noise Exposure Map Development*, Sec. A150.101 Noise contours and land usages, element (d), Martin County has elected to evaluate the compatibility of land uses within the 60 DNL dBA noise levels due to local needs and values.

The 2004 NCP recommended 12 operational noise abatement measures and 9 land use compatibility planning measures. The FAA issued the Record of Approval (ROA) for the NCP on January 30, 2004 (included as **Appendix A**). The FAA approved nine of the 12 operational measures and 8 of the 9 land use measures. One land use measure, LU1 – Noise Zoning, was approved “in part”, and disapproved “in part”. This NCP specifically addresses FAA concerns regarding LU1 and corrects the preventive land use measure to address residential land uses within the 60 DNL noise contour.

Since the issuance of the FAA’s 2004 ROA, Martin County has successfully implemented certain noise abatement and land use planning recommendations as prioritized by the Airport Noise Advisory Committee (ANAC) and the Board of County Commissioners (BOCC). In 2009, Martin County accepted a grant for continuing implementation of the voluntary noise mitigation program, which includes home acquisition and sound insulation. At the time of the issuance of the grant, FAA Airport District Office staff informed Martin County that any new grants for future mitigation programs would require an update to the NEM and NCP documents.

Updated NEM and NCP Documents - Noise Exposure Maps for existing conditions 2010 and five-year forecast conditions 2015 were submitted to the FAA in September 2010. Subsequently, FAA announced their determination that the revised noise exposure maps are in compliance with applicable requirements of the provisions of 49 U.S.C. 47501 and 14 CFR Part 150, effective December 6, 2011. The FAA’s Federal Register Notice of this finding and the NEMs are included as **Appendix B** of this NCP.

In October 2011, Martin County began work on this new NCP. This NCP addresses the continued implementation of the noise compatibility operational and land use compatibility planning measures approved by the FAA in the 2004 ROA, based on the changes in noise exposure documented in the 2010 NEM document. The balance of this document includes the following sections:

- Chapter 2: FAA Noise Compatibility Program Checklist and Land Use Compatibility Guidelines
- Chapter 3: Agency and Public Consultation
- Chapter 4: Overview of Updated Noise Exposure Maps
- Chapter 5: Consideration of Noise Compatibility Program (NCP) Alternatives
- Chapter 6: Summary of Operational and Land Use Compatibility Planning Measures Recommended for Implementation by the Martin County BOCC

Chapter 2

FAA Noise Compatibility Program Checklist and Land Use Compatibility Guidelines

2.1 FAA Noise Compatibility Program Checklist

The FAA has developed a detailed checklist to aid in the development and implementation of Noise Compatibility Programs (NCP). The checklist has been completed for this NCP Update and is provided below and on subsequent pages.

PROGRAM REQUIREMENT	Yes/No/NA	Supporting Pages/Review Comments
I. Submitting And Identifying The NCP:		
A. Submission is properly identified:		
1. 14 C.F.R. Part 150 NCP?	Yes	See Cover; Chapter 1, Page 6
2. NEM and NCP together?	No	NEMs approved in 2011; see Appendix B
3. Program revision? (To what extent has it been revised?)	Yes	NCP recommendations address mitigation based upon updated NEMs
B. Airport and Airport sponsor's name are identified?	Yes	See Certification, page 2
C. NCP is transmitted by airport sponsor's cover letter?	Yes	Sponsor letter updated
II. Consultation (including public participation): [150.23]		
A. Documentation includes narrative of public participation and consultation process?	Yes	See Chapter 3, page 15
B. Identification of consulted parties:		
1. All parties in 150.23(c) consulted?	Yes	See Chapter 3, page 15
2. Public and planning agencies identified?	Yes	See Chapter 3, page 15
3. Agencies in 2., above, correspond to those affected by the NEM noise contours?	Yes	See Chapter 3, page 15
C. Satisfies 150.23(d) requirements by:		
1. Documentation shows active and direct participation of parties in B., above?	Yes	See Chapter 3, Table 3-1, page 16
2. Active and direct participation of general public and opportunity to submit their views, data, and comments on the formulation and adequacy of the NCP?	Yes	See Chapter 3, page 15
3. Participation was prior to and during development of NCP and prior to submittal to FAA?	Yes	See Chapter 3, page 15
4. Indicates adequate opportunity afforded to all consulted parties to submit views, data, etc.?	Yes	See Chapter 3, page 15 and Table 3-1, page 16
D. Evidence is included there was notice and opportunity for a public hearing on the final NCP?	Yes	Notice of opportunity was provided; See pgs. 16 and 17 and Appendices D and E. No hearing was requested
E. Documentation of comments:		
1. Includes summary of public hearing comments, if hearing was held?	NA	See pgs. 15 and 16 and Appendices D and E. No hearing was requested.
2. Includes copy of all written material submitted to operator?	NA	
3. Includes operator's responses/disposition of written and verbal comments?	NA	No comments received.
F. Is there written evidence from the appropriate office within the FAA that the sponsor received informal agreement to carry out proposed flight procedures?	NA	

PROGRAM REQUIREMENT	Yes/No/NA	Supporting Pages/Review Comments
III. NOISE EXPOSURE MAPS: [150.23, B150.3; 150.35(f)] (This section of the checklist is not a substitute for the Noise Exposure Map checklist. It deals with maps in the context of the Noise Compatibility Program submission.)		
A. Inclusion of NEMs and supporting documentation:		
1. Map documentation either included or incorporated by reference?	Yes	By reference, see Appendix B
2. Maps previously found in compliance by FAA?	Yes	December 6, 2011, see Appendix B
3. FAA's compliance determination still valid?	(a) Yes	(a) See Sponsor's Certification, page 2, Item 1
(a) Existing condition NEM represents conditions at the airport at the time of submittal of the NCP for FAA approval?	(b) Yes	(b) See Sponsor's Certification, page 2, Item 2
(b) Forecast condition NEM represents conditions at the airport at least 5 years into the future from the date of submittal of the NCP to the FAA for approval?	(c) Yes	(c) See Sponsor's Certification, page 2, Items 1 and 2. Also see Chapter 4, page 18
(c) Sponsor letter confirming elements (a) and (b), above, if date of submission is either different than the year of submittal of the previously approved NEMs or over 12 months from the date shown on the face of the NEM?	(d) N/A	(d) N/A
(d) If (a) through (c) cannot be validated, the NEMs must be redone and resubmitted as per 150.21.		
4. Does 180-day period have to wait for map compliance finding?	No	NEM's accepted in December 2011. See Appendix B.
B. Revised NEMs submitted with program: (Review using NEM checklist if map revisions included in NCP submittal. Report the applicable findings in the spaces below after a full review using the NEM checklist and narrative.)	NA	
1. Revised NEMs included with program?	NA	
2. Has airport sponsor requested in writing that FAA make a determination on the NEM(s), showing NCP measures in place, when NCP approval is made?	NA	
C. If program analysis uses noise modeling:		
1. INM, HNM, or FAA-approved equivalent?	Yes	INM was used
2. Monitoring in accordance with A150.5?	NA	Monitoring was not done in NCP Phase
D. One existing condition and one forecast-year map clearly identified as the official NEMs?	Yes	See Appendix B, NEMs Figures 5-2 and 5-3
IV. CONSIDERATION OF ALTERNATIVES: [B150.7, 150.23(e)(2)]		
A. At a minimum, were the alternatives below considered, or if they were rejected was the reason for rejection reasonable and based on accurate technical information and local circumstances?	Yes	See Chapter 5, page 23
1. Land acquisition and interests therein, including air rights, easements, and development rights?	Yes	See Chapter 5, Section 5.2, page 29
2. Barriers, acoustical shielding, public building soundproofing	Yes	See Chapter 5, Section 5.2, page 29
3. Preferential runway system	Yes	See Chapter 5, Section 5.1, page 23
4. Voluntary flight procedures	Yes	See Chapter 5, Section 5.1, page 23
5. Restrictions described in B150.7 (taking into account Part 161 requirements)	Yes	See Chapter 5, Section 5.1, page 23
6. Other actions with beneficial impact not listed in the regulation	Yes	See Chapter 5, Section 5.1 and 5.2
7. Other FAA recommendations (see D, below)	NA	
B. Responsible implementing authority identified for each considered alternative?	Yes	See Chapter 5, Chapter 6, Table 6-1, page 41
C. Analysis of alternative measures:		
1. Measures clearly described?	Yes	See Chapter 5, page 23
2. Measures adequately analyzed?		
3. Adequate reasoning for rejecting alternatives?		

PROGRAM REQUIREMENT	Yes/No/ NA	Supporting Pages/Review Comments
D. Other actions recommended by the FAA: As the FAA staff person familiar with the local airport circumstances, determine whether other actions should be added? (List separately, or on back, actions and describe discussions with airport sponsor to have them included prior to the start of the 180-day cycle. New measures recommended by the airport sponsor must meet applicable public participation and consultation with officials before they can be submitted to the FAA for action. See E., below.)	NA	
V. ALTERNATIVES RECOMMENDED FOR IMPLEMENTATION: [150.23(e), B150.7(c); 150.35(b), B150.5]		
A. Document clearly indicates:		
1. Alternatives that are recommended for implementation?	Yes	See Chapter 6, Table 6-1, page 41
2. Final recommendations are airport sponsor's, not those of consultant or third party?	Yes	See Appendix E, BOCC NCP adoption documents
B. Do all program recommendations:		
1. Relate directly or indirectly to reduction of noise and noncompatible land uses? (Note: All program recommendations, regardless of whether previously approved by the FAA in an earlier Part 150 study, must demonstrate a noise benefit if the airport sponsor wants FAA to consider the measure for approval in a program update. See E., below.)	Yes	See Chapter 6, Section 6.1, Table 6-2, page 43
2. Contain description of each measure's relative contribution to overall effectiveness of program?	Yes	See Chapter 6, Section 6.1, Table 6-2, page 43
3. Noise/land use benefits quantified to extent possible to be quantified? (Note: some program management measures cannot be readily quantified and should be described in other terms to show their implementation contributes to overall effectiveness of the program.)	Yes	See Chapter 6, Section 6.1, Table 6-2, page 43
4. Does each alternative include actual/anticipated effect on reducing noise exposure within noncompatible area shown on NEM?	Yes	See Chapter 6, Section 6.1, Table 6-2, page 43
5. Effects based on relevant and reasonable expressed assumptions?	Yes	See Chapter 6, Section 6.1, Table 6-2, page 43
6. Does the document have adequate supporting data that the measure contributes to noise/land use compatibility?	Yes	See Chapter 6, Section 6.1, Table 6-2, page 43
C. Analysis appears to support program standards set forth in 150.35(b) and B150.5?	Yes	
D. When use restrictions are recommended for approval by the FAA:		
1. Does (or could) the restriction affect Stage 2 or Stage 3 aircraft operations (regardless of whether they presently operate at the airport)? (If the restriction affects Stage 2 helicopters, Part 161 also applies.)	NA	
2. If the answer to D.1 is yes, has the airport sponsor completed the Part 161 process and received FAA Part 161 approval for a restriction affecting Stage 3 aircraft? Is the FAA's approval documented? For restrictions affecting only Stage 2 aircraft, has the airport sponsor successfully completed the Stage 2 analysis and consultation process required by Part 161 and met the regulatory requirements, and is there evidenced by letter from FAA stating this fact?	NA	
3. Are non-restrictive alternatives with potentially significant noise/compatible land use benefits thoroughly analyzed so that appropriate comparisons and conclusions among all alternatives can be made?	NA	
4. Did the FAA regional or ADO reviewer coordinate the use restriction with APP-400 prior to making determination on start of 180-days?	NA	

PROGRAM REQUIREMENT	Yes/No/NA	Supporting Pages/Review Comments
E. Do the following also meet Part 150 analytical standards?		
1. Recommendations that continue existing practices and that are submitted for FAA re-approval? (Note: An airport sponsor does not have to request FAA re-approval if noise compatibility measures are in place from previously approved Part 150 studies. If the airport has implemented the measures as approved in the previous NCP, the measures may be reported and modeled as baseline conditions at the airport.)	Yes	See Chapter 6, Table 6-1, page 41
2. New recommendations or changes proposed at the end of the Part 150 process?	Yes	See Chapter 6, page 40
F. Documentation indicates how recommendations may change previously adopted noise compatibility plans, programs, or measures?	Yes	See Chapter 6, Table 6-1, page 41
G. Documentation also:		
1. Identifies agencies that are responsible for implementing each recommendation?	Yes	See Chapter 6, Table 6-1, page 41
2. Indicates whether those agencies have agreed to implement?	Yes	See Chapter 6, Table 6-1, page 41
3. Indicates essential government actions necessary to implement recommendations?	Yes	See Chapter 6, Table 6-1, page 41
H. Timeframe:		
1. Includes agreed-upon schedule to implement alternatives?	Yes	See Chapter 6, Table 6-1, page 41
2. Indicates period covered by the program?	Yes	See Chapter 6, Table 6-1, page 41
I. Funding/Costs:		
1. Includes costs to implement alternatives?	Yes	See Chapter 6, Table 6-1, page 41
2. Includes anticipated funding sources?	Yes	See Chapter 6, Table 6-1, page 41
VI. PROGRAM REVISION: [150.23(e)(9)]		
Supporting documentation includes provision for revision? (Note: Revision should occur when it is likely a change has taken place at the airport that will cause a significant increase or decrease in the DNL noise contour of 1.5 dB or greater over noncompatible land uses. See §150.21(d))	Yes	See Chapter 6, page 40

2.2 Land Use Compatibility Guidelines

DNL estimates provide a quantitative basis for identifying potential noise impacts. Part 150 provides the FAA's recommended guidelines for noise-land use compatibility evaluation. Part 150 land use compatibility guidelines are applied to the DNL contours to identify the potential types, degrees and locations of incompatibility. Measurement of the land areas involved provides a measure of impact that allows a comparison of the effects of existing or forecast operations. Part 150 guidelines provide that all uses normally are compatible with aircraft noise at exposure levels below 65 DNL. Noise sensitive areas such as residential, schools, and churches exposed to noise levels between DNL 65 and 75 are "normally unacceptable," and may qualify for special noise abatement measures and programs. Those land uses at 75 DNL and above are "unacceptable" except under very limited circumstances.

FAR Part 150 permits airports and local land use control jurisdictions to adopt land use compatibility criteria that are equal to or more stringent than, the Part 150 guidelines. Part 150 further establishes that the responsibility for determining the acceptable and permissible land uses and the relationship between

specific properties and specific noise contours rests with the local authorities.² In response to public input prior to and throughout the 2002 Part 150 study process, the Martin County Board of County Commissioners (BOCC) elected to go beyond the FAA's recommended guidelines and analyze operational alternatives and land use compatibility issues to the 60 DNL. **Appendix C** includes a record of the Board of County Commissioners voting to implement the 60 DNL Planning standard. **Table 2-1** illustrates the FAA's land use compatibility guidelines from Part 150 Appendix A – Table 1, modified to reflect Martin County's 60 DNL planning threshold.

² FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

Table 2-1 Martin County Noise / Land Use Compatibility Guidelines
(Adapted to FAR Part 150 Appendix A, Table 1, Martin County modifications shown in **BOLD**)

	Yearly Day-Night Avg. Sound Level, DNL, in Decibels (Key and notes on following page)						
		Martin County Zone B	Martin County Zone A				
Land Use	<60	60-65 (9)	65-70 (9)	70-75 (9)	75-80 (9)	80-85	>85
Residential Use							
Residential other than mobile homes and transient lodgings	Y	Y (1)	N(1)(7)	N(1)	N	N	N
Mobile home park	Y	Y	N	N	N	N	N
Transient lodgings	Y	Y (1)	N(1)	N(1)(7)	N	N	N
Public Use							
Schools	Y	N	N(1)	N	N	N	N
Hospitals and nursing homes	Y	N	N	N	N	N	N
Churches, auditoriums, and concert halls	Y	N	N	N	N	N	N
Governmental services	Y	Y (2)	Y(3)	Y (3)	30	N	N
Transportation	Y	Y	Y	Y(3)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y	Y(3)	Y(3)	Y(4)	N
Commercial Use							
Offices, business and professional	Y	Y (2)	Y(3)	30	30	N	N
Wholesale and retail--building materials, hardware and farm equipment	Y	Y	Y	Y(3)	Y(3)	Y(4)	N
Retail trade--general	Y	Y	Y	Y(3)	Y(3)	Y(4)	N
Utilities	Y	Y	Y	Y(3)	Y(3)	Y(4)	N
Communication	Y	Y	Y	30	30	N	N
Manufacturing and Production							
Manufacturing general	Y	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y (6)	Y(7)	Y(8)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y (6)	Y(7)	Y(8)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y	Y
Recreational							
Outdoor sports arenas and spectator sports	Y	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	Y	N	N	N
Golf courses, riding stables, and water recreation	Y	Y	Y	30	30	N	N

Source: 2002 FAR Part 150 Noise Study, Martin County Airport / Witham Field

Key to Table 2-1

SLCUM	Standard Land Use Coding Manual.
Y (Yes)	Land use and related structures compatible without restrictions.
N (No)	Land use and related structures are not compatible and should be prohibited.
NLR	Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30, or 35	Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

Notes

The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

- (1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often started as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
- (2) Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
- (3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
- (4) Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
- (5) Land use compatible provided special sound reinforcement systems are installed.
- (6) Residential buildings require an NLR of 25.
- (7) Residential buildings require an NLR of 30.
- (8) Residential buildings not permitted.
- (9) Disclosure Notice Required: No contract for sale or lease of property may be drawn, made, executed, used or recorded unless there is a note on such contract or lease disclosing that the property is located within the 65 DNL noise contour of Martin County Airport/Witham Field.

Chapter 3

Agency and Public Consultation

Agency and public consultation occurred throughout the development of this document, facilitated through the Martin County Airport Noise Advisory Committee (ANAC). This committee has the duty and responsibility to make recommendations to the Board of County Commissioners regarding the implementation of operational and land use mitigation measures adopted in the 2002 study and this update. The ANAC includes one representative from each of the following 13 entities / organizations:

- Resident from within the DNL 65 noise exposure contour
- Resident from within the DNL 60 noise exposure contour
- Resident from within the DNL 65 or 60 noise exposure contour
- Flight Instructor representative
- Witham Field charter operator representative
- Witham Field based aircraft owner
- Witham Field Fixed Base Operator (FBO) representative
- City of Stuart Council member
- Sewall's Point Town Council representative
- Friends of Witham Field representative
- Member of the Martin County Board of County Commissioners
- Witham Aero Club representative
- Witham Airport Action Majority (WAAM) representative

The committee maintains a regular meeting schedule that is advertised in advance on the County's web site, on County meeting bulletin boards, and in the local newspaper. Members of the community at large attend regularly.

Consistent with consultation requirements set forth in Part 150 Section 150.23, the ANAC membership included representatives of regular aeronautical users of the airport, and all government agencies with land use control jurisdiction within the NEMs, which are limited to Martin County and the City of Stuart. As all the meetings were widely advertised and open to the public, the consultation also afforded all other interested parties the opportunity to participate and comment.

The ANAC met on four occasions during the preparation of this NCP Update. Meetings were also held with residents of the City of Stuart and the Stuart City Council. **Table 3-1** provides the dates of these meetings and summarizes the primary topics discussed. **Appendix D** provides copies of the meeting agendas, meeting minutes (if available) and presentations from these meetings. No written comments were received during the NCP consultation process. In addition to the ANAC meetings, consultation occurred with the FAA Airports Division, FAA Airport Traffic Control Tower (ATCT) staff, airport users, and airport tenants throughout the planning process.

The NCP Update was presented to the Martin County Board of County Commissioners at their regularly scheduled meeting on Tuesday, September 11, 2012. A presentation was made and public comment was invited. No written or verbal comments were received on the NCP during the meeting. The BOCC

approved the NCP and directed staff to submit the document to the FAA for review and comment. A copy of the meeting action summary and consultant presentation is included in **Appendix E**.

Table 3-1 Summary of Agency and Public Consultation Meetings Held During Preparation of This NCP, Martin County Airport / Witham Field

Meeting Date	Topic
April 21, 2011	FAA Orlando ADO and Martin County – Review of NEM update, noise mitigation elements of the previously approved NCP to be carried over
October 1, 2011	Martin County / City of Stuart briefing – Status of NCP update
December 1, 2011	Martin County / City of Stuart briefing – Status of NCP update
December 15, 2011	FAA Orlando ADO and Martin County – Review of noise mitigation elements of the previously approved NCP to be carried over, Phase 2 HAP
January 26, 2012	ANAC - Review of project elements and milestones, NEM refresher.
April 5, 2012 April 12, 2012	City of Stuart neighborhood meetings – Two meetings were conducted. Martin County and consultant staff reviewed the status of the current land use compatibility and mitigation program implementation, and potential future NCP measures.
April 26, 2012	ANAC - Review status of current land use compatibility and mitigation program implementation, discussion of potential future programs and program areas.
June 11, 2012	Stuart City Commission - Review status of current land use compatibility/mitigation program implementation, alternative DNL planning standard, and review of potential future NCP measures.
July 19, 2012	ANAC – Review of final NCP recommendations
September 11, 2012	Martin County BOCC – presentation of the final NCP recommendations. BOCC approval of the NCP.

Source: Martin County, 2012

Chapter 4

Overview of 2010 and 2015 Noise Exposure Maps

FAR Part 150 requires airports to develop noise exposure contours using the most recent release of the FAA's Integrated Noise Model (INM). INM 7.0b was the most current version of the model at the time the noise contours were prepared for the 2010 NEM study. The INM requires specific data inputs including airport characteristics, such as the dimensions and physical locations of runways and helipads and airport operations and activity levels, including total and average day aircraft operations for each study year (existing and future) by type of aircraft and time of day (day-night split), runway utilization rates and flight track descriptions and utilization rates.

Noise Exposure Maps for existing conditions 2010 and five-year forecast conditions 2015 were submitted to the FAA in September 2010. Subsequently, FAA announced their determination that the revised noise exposure maps are in compliance with applicable requirements of the provisions of 49 U.S.C. 47501 and 14 CFR Part 150, effective December 6, 2011. The FAA's Federal Register Notice of this finding and the NEMs are included as **Appendix B** of this NCP.

This section documents current airport activity levels and fleet mix, and compares this data to the information used to develop updated 2010 and 2015 NEM's. This section also compares SUA activity levels to the 2012 FAA Terminal Area Forecasts (TAF).

FAR Part 150 (150.23, B150.3; 150.35(f)) provides for the submission of an NCP based upon NEMs previously found in compliance by FAA. The airport sponsor must certify that:

- 1) the existing condition NEM represents conditions at the airport at the time of the submittal of the NCP to the FAA, and
- 2) the forecast condition NEM represents conditions at the airport at least 5 years into the future from the date of the submittal of the NCP to the FAA for approval.

Martin County has certified that the NEMs for the existing condition (2010) and five-year forecast condition (2015) represent current (2012) and five-year forecast (2017) conditions at the airport at the time of the submittal of the NCP to the FAA. This certification is the first page of this NCP document behind the cover page.

4.1 Basis of Sponsor Certification of NEM Compliance

The information in the following sections supports the Airport Sponsor's Certification for NEM and NCP compliance.

4.1.1 Airport Operations and Activity Levels

Operations data key for the development of the noise exposure contours for SUA include total airport operations, average annual day operations, percent of day versus night³ activity, and operations by aircraft type (fleet mix). Martin County recently completed a comprehensive forecast analysis as part of the 2010

³ Night is defined in the INM as the hours between 10:00 pm and 7:00 am.

Airport Master Plan Update (MPU). The MPU forecast analysis comprised a bottom-up approach and applicable methodologies to predict forecasts at the airport level. Forecasts were compiled on an individual basis and the aggregate results reflect the overall activity level of the airport. The approach involved analyzing historic activity and projecting activity levels that conform to the growth pattern established by each activity type. The resulting sum of the aviation activity is indicative of the future estimates of activity at the airport level.

Data sources used to develop the 2010 MPU forecast included the 2009 TAF (current at the time of the MPU), Florida Aviation System Plan forecasts (2008), SUA ATCT traffic counts, SUA night curfew reports, the Airport Master Record, and other sources. The forecasts formed the basis for the development of the 2010 and 2015 noise exposure contours that were accepted by the FAA in December 2011.

Appendix F includes a copy of the FAA's January 25, 2010 letter approving the forecasts of activity contained in the MPU.

A new FAA TAF was released in January 2013. The paragraphs below provide a review of the airport operations and activity levels established in the 2010 MPU and NEM compared to the January 2013 FAA TAF forecasts. Actual operations for relevant periods are also shown.

Total Aircraft Operations

Table 4-1 illustrates a comparison of total annual aircraft operations activity for certain current periods to operations used for the development of the 2010 and 2015 NEMs and this NCP Update to the FAA Terminal Area Forecasts.

Table 4-1 Comparison of Airport Actual, Planning and TAF Forecast Operations, Martin County Airport / Witham Field

Condition	Year	MPU/Actual Operations	TAF Operations	MPU Approved Forecast vs. TAF (% Difference)
MPU Base Year/Actual Operations	2009	65,587	59,538 ⁴	+11.84%
NEM Existing Conditions	2010	61,164 ⁵	58,786 ⁴	+4.04%
Actual Total Operations	2010	63,834	62,856	+1.56%
Actual Total Airport Operations	2012	57,198	56,178 ⁶	+1.82%
NEM Five Year Forecast Conditions	2015	67,387 ⁵	55,671 ⁶	+21.05%
Forecast	2017	69,849 ⁵	56,153 ⁶	+24.39%

Source: 2010-2030 Airport Master Plan Update, CDM: Martin County Airport 2010 NEM Update, CDM, Table 4-2; FAA Terminal Area Forecasts, 2012-2040, January 2013, Martin County Voluntary Curfew Reports, 2010-2012.

⁴ January 2009 FAA Terminal Area Forecast

⁵ 2010-2030 Airport Master Plan Update, CDM

⁶ January 2013 FAA Terminal Area Forecast

As shown:

- Actual annual airport operations surpassed estimates in the 2009 and 2013 FAA TAF's. The January 2009 TAF estimated 59,538 total airport operations for the 2009 planning period; Actual operations that year totaled 65,587.
- The January 2013 TAF estimated 55,671 total airport operations for the 2015 planning period. Actual operations that year totaled 67,387.
- The MPU forecast predicted activity levels at 61,164 for the 2010 calendar year (the base year for the 2010 NEM Update); actual operations totaled 63,834. Actual operations surpassed TAF forecast operations by 1.56 percent.
- Actual Operations in 2012 surpassed TAF projections by 1.82 percent.

DNL Change Comparison

DNL calculations identified the difference in DNL associated with the change in total aircraft operations (with the 2010 NEM contours as the baseline). As shown in **Table 4-2**, all else remaining equal, differences in aircraft activity in 2010, 2012, 2015 and the MPU forecasts for 2017 result in DNL differences of less than 0.5 dB, well below the FAA's 1.5 dB criterion of significance.

Table 4-2 DNL Change Comparison, Martin County Airport / Witham Field

Year	Total Operations			Change in DNL Compared to 2010 (decibels, db)
	Local	Itinerant	Total	
NEM Existing Conditions 2010	17,676	43,488	61,164	0.00
Average Annual Day	48	119	167	
Total Actual Operations 2012	16,530	40,660	57,198	-0.37
Average Annual Day	45	111	156	
NEM Five-Year Forecast 2015	19,470	47,917	67,387	0.42
Average Annual Day	53	131	184	
Master Plan Update 2017 Forecast	20,182	49,667	69,849	0.58
Average Annual Day	55	136	191	

Source: 2010-2030 Airport Master Plan Update, CDM: Martin County Airport 2010 NEM Update, CDM, Table 4-2; FAA Terminal Area Forecasts, 2012-2040, January 2013; Martin County Voluntary Curfew Reports, 2010-2012.

Day/Night Activity

Monthly voluntary nighttime curfew operations logs, ATCT reports and ANOMS data show that the day/night activity level assumptions used in the INM input files for the years 2010, 2012, 2015 and 2017 are unchanged. Approximately 3% of activity occurs between the hours of 10 p.m. through 7 a.m. This percentage was held as a constant for all study years.

Mix of Aircraft Operations

A primary contributor to the size and shape of the INM contours for SUA are general aviation jets. During 2012 calendar year, actual average daily jet aircraft operations are similar, although down slightly, compared to the operations modeled in the INM existing condition 2010 NEMs. Jet aircraft operations are expected to continue to represent approximately 17% of the airport operational felt mix through 2017 and beyond.

Table 4-3 compares the 2010 and 2015 fleet mix distribution with the activity levels projected in the 2013 TAF for the 2017 planning period. The percentage of operations in each aircraft category is within one or two percent of the same values in each of the four time periods evaluated. This difference is within reasonable accuracy limits of the INM for modeling fleet mixes, so no change in the contours due to shifts among major aircraft type operating at SUA would occur.

4.1.2 Airport Layout, Runway Use Rates, Flight Track Geometry and Use Rates, Weather Conditions, and Airspace Use

There have been no physical changes to the SUA runway or taxiway system, and no anticipated changes to the arrival/departure/touch-and-go flight tracks, weather patterns, or airspace usage that would alter the runway use or flight patterns or utilization rates such that it would change the size and shape of the 2010 or 2015 NEM's.

4.2 Summary

Martin County has certified that the NEMs for the existing condition NEM (2010) representing conditions at the airport at the time of the submittal of the NCP (2012) to the FAA, and the forecast condition NEM (2015) represents conditions at the airport at least 5 years into the future from the date of the submittal of the NCP (2017) to the FAA for approval.

The basis of this certification is summarized below:

- The airport activity levels documented in the MPU and 2010 NEM Update more accurately reflect operational activity forecast at SUA than the FAA TAF forecasts. FAA Orlando ADO approved the MPU forecasts used for the purposes of this NCP on January 25, 2010.
- A review of actual activity compared to the approved MPU forecasts and January 2013 TAF forecasts profess the following:
 - Actual annual airport operations surpassed estimates in the 2009 and 2013 FAA TAF. The December 2009 TAF estimated 59,538 total airport operations for the 2009 planning period; Actual operations that year totaled 65,587.
 - The January 2013 TAF estimated 55,671 total airport operations for the 2015 planning period. Actual operations that year totaled 67,387.

- The MPU forecast predicted activity levels at 61,164 for the 2010 calendar year (the base year for the 2010 NEM Update); actual operations totaled 63,834. Actual operations surpassed TAF forecast operations by 1.6 percent.
- Actual Operations in 2012 surpassed TAF projections by 1.8 percent.
- The January 2013 TAF estimates a level of aircraft operations 24% lower than the 2017 MPU forecast. **Table 4-2** shows that all else remaining equal, differences in aircraft activity in 2010, 2012, 2015 and the MPU forecasts for 2017 result in DNL differences of less than 0.5 dB, well below the FAA's 1.5 dB criterion of significance

Table 4-3 Fleet Mix Comparison, Martin County Airport / Witham Field

Aircraft Type	Existing Conditions 2010 (Used as 2012 NEM)			Actual 2012 Operations			Five-Year Forecast 2015 (Used as 2017 NEM)			MPU Forecast for 2017		
	Total	%	Avg. Day	Total	%	Avg. Day	Total	%	Avg. Day	Total	%	Avg. Day
Single/Multi Eng. Piston	44,650	73%	122	41,754	73%	114	49,382	73%	135	50,990	73%	139
Jet	10,398	17%	29	8,979	16%	24	11,700	17%	32	11,874	17%	32
Turbo-Prop	4,893	8%	13	4,665	8%	13	5,274	8%	14	5,588	8%	15
Helicopter	1,223	2%	3	1,800	3%	5	1,031	2%	3	1,397	2%	4
Total	61,164	100%	167	57,198	100%	156	67,387	100%	184	69,849	100%	191

Source: 2010-2030 Airport Master Plan Update, CDM, Table 3-26; Martin County Airport 2010 NEM Update, CDM, Table 4-4; Martin County Voluntary Curfew Reports, 2010-2012.

- The percentage of night activity is approximately 3% and is held as a constant for all study years.
- The difference in the number of aircraft operations in each fleet category in the four time periods evaluated is within reasonable accuracy limits of the INM for modeling fleet mixes, so no change in the contours due to shifts among major aircraft type operating at SUA would occur.

Chapter 5

Consideration of Noise Compatibility Program (NCP) Alternatives

14 CFR Part 150 [B150.7, 150.23(e)(2)] requires the evaluation of specific alternatives as part of the NCP process. They include:

- 1) Acquisition of land interests, including air rights, easement and development rights,
- 2) Construction of berms, acoustical shielding or (public building) sound insulation
- 3) Establishment of a preferential runway use system
- 4) Use of flight procedures/modification of flight tracks
- 5) Implementation of noise related fees
- 6) Restriction of use by certain aircraft types
- 7) Other actions that may provide a noise benefit

The paragraphs below describe the history of each noise abatement operational measure, land use planning element and the status of local implementation by the Airport Sponsor. A recommendation for continued implementation is also included, where appropriate.

5.1 Status of 2004 NCP Recommended Aircraft Operational Measures and Martin County Recommendations for Future Implementation

The noise abatement and operational measures evaluated by Martin County for this NCP fall within 3 general categories: (1) measures to limit the impacts of aircraft ground noise, (2) measures to limit the impacts of aircraft takeoff and landing noise, and (3) measures that can enhance implementation and monitoring of the noise abatement program in general. The operational noise abatement measures evaluated in the 2004 NCP and re-evaluated in this 2012 NCP included the following alternative measures.

OPS1 – Preferential Runway Use	OPS7 – Voluntary Takeoff and Landing Procedures
OPS2 – Ban of Stage 1 Aircraft	OPS8 – Install Flight Tracking System (NOMS)
OPS3 – Voluntary Night-Time Curfew	OPS9 – Pilot Information Program
OPS4 – Voluntary Touch-and-Go Limits	OPS10 – Monitor Air Traffic Control Frequencies
OPS5 – Runway 12 Voluntary Noise Abatement Departure Flight Track	OPS11 – Engine Run-up Procedures and Facilities
OPS6 – Runway 30 Voluntary Noise Abatement Departure Flight Track	OPS12 – Noise Barriers

The paragraphs below describe each operational element, the FAA's action taken in the 2004 ROA, and the status of local implementation by Martin County since the 2004 ROA. The BOCC's recommendation for continued implementation of each measure through this NCP is also included, where appropriate.

Note: INM inputs for the 2010 and 2015 NEMs include assumptions related to the implementation of these operational measures.

OPS1 - Preferential Runway Use

Purpose: To promote the use of Runway 12 during calm wind conditions (0 to 5 Knots).

Description: This measure promotes the use of Runway 12 to optimize runway utilization under calm wind conditions (0 to 5 knots). These conditions occur approximately 10% of the time.

2004 FAA Record of Approval: FAA Action: Disapproved for purposes of Part 150. This measure does not satisfy FAR Part 150 approval criteria because it does not provide an overall reduction in numbers of noise impacted population.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Preferential runway use is promoted on a voluntary basis through pilot information materials which include posters, pilot brochures, and signage.

Recommendation for this NCP: Continue as a voluntary measure.

OPS2 - Ban of Stage 1 Aircraft

Purpose: To study and analyze the future ban of Stage 1 aircraft at SUA.

Description: The 2002 NEM Study reviewed historical airport operational data to identify the types of aircraft that frequently utilize the Martin County Airport. The historic data shows a small number of Stage 1 aircraft occasionally utilize the airport (approximately 0.14% of total operations).

2004 FAA Record of Approval: FAA Action: Disapproved for purposes of Part 150. The analysis contained in the NCP states that implementing a ban on Stage 1 aircraft would not impact the noise contour used for comparison in this study (2007, with and without program measures). Also, the FAA notes that Measure LU1, may allow construction of new residences within the DNL contour selected by the airport sponsor as locally significant (i.e., DNL 60-65 dB). Local actions to permit new incompatible construction in a DNL contour selected by the airport sponsor as locally significant would not be reasonably consistent with achieving the goal of reducing noncompatible uses (49 U.S.C. section 47504 (b)(1)(B), and Part 150 section 150.35(b)(1)). Also, to approve a measure under Part 150, it must not be unjustly discriminatory (section 150.35(b)(1)).

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: This measure was not formally implemented.

Recommendation for this NCP: Not recommended for implementation.

OPS3 - Voluntary Night Time Curfew

Purpose: To strongly discourage aircraft operations during voluntary nighttime curfew hours of 11 p.m. through 7 a.m. daily.

Description: This measure discourages aircraft operations (landings and takeoffs) during voluntary nighttime curfew hours of 11 p.m. through 7 a.m. daily.

2004 FAA Record of Approval: FAA Action: *Approved as a voluntary measure. The NCP analysis assumes high rate of compliance with this measure based on current compliance rates. This measure is proposed to be accomplished with continued pilot education. There will be no mandatory enforcement.*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: To track voluntary compliance with this measure, Airport staff have maintained operations logs during hours when the tower was closed. Letters and pilot education materials are sent to curfew operators. The ANAC reviews monthly Curfew Reports with particular emphasis on jet operations due to the high level of community annoyance associated with nighttime jet operations. The installation of the Noise Operations Monitoring System (NOMS) recommended as OPS8, has simplified monitoring and reporting of curfew operations. This measure has been implemented through the Pilot Information Programs (OPS9).

Recommendation for this NCP: *Continue as a voluntary measure.*

OPS4 - Voluntary Touch-and-Go Limits

Purpose: To discourage touch-and-go operations Monday-Saturday before 8 a.m. and 2 hours after sunset and 24 hours on Sunday, Thanksgiving, Christmas and New Year's Day.

Description: This measure assumes continued implementation of the existing voluntary program, which calls for no touch-and-goes at night Monday thru Saturday, and adds the voluntary limitations to touch-and-goes on Sundays, New Year's Day, Thanksgiving Day, and Christmas Day.

2004 FAA Record of Approval: FAA Action: *Approved as a voluntary measure. The NCP analysis assumes 100% compliance based on current compliance rates. This measure will be accomplished with continued pilot education and will not include mandatory enforcement.*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Airport staff monitors aircraft operations that occur when the tower is closed. This measure has been implemented through the Pilot Information Programs (OPS9).

Recommendation for this NCP: *Continue as a voluntary measure.*

OPS5 - Runway 12 Voluntary Noise Abatement Departure Flight Track

Purpose: To encourage use of the straight-out departure track for IFR takeoffs on Runway 12.

Description: This measure contemplated the development of a standard departure procedure (DP) for use by pilots operating under Instrument Flight Rules on Runway 12. The procedure guides pilots electronically along a flight path that is straight out and centered over the St. Lucie Inlet to avoid residential areas prior to turning on course.

2004 FAA Record of Approval: FAA Action: *Approved as voluntary when a pilot requests to proceed to the ocean before making a turn, when traffic, weather, and airspace safety and efficiency conditions permit ATC to approve the request. This measure assumes an average of 1% per day will utilize this voluntary measure. While this measure does increase by a small number the residents in the 65-70 DNL contour, it reduces the population included in the 60-65 DNL contour, providing a net decrease in people exposed to noise. Current airspace constraints to the north and south of Martin County significantly curtail the use of this procedure. As airspace allocations are adjusted by Air Traffic, the NCP may be updated to analyze additional compliance with this measure.*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: The DPs were published in August 2009 and became effective and available for pilot use December 17, 2009. Voluntary compliance is encouraged through on-airport signage, FBO posters, and publication in pilot information materials, pilot websites, and information in manuals.

Recommendation for this NCP: *Continue as a voluntary measure.*

OPS6 - Runway 30 Voluntary Noise Abatement Departure Flight Track

Purpose: To encourage a left turn to 285 degrees for IFR aircraft departing Runway 30.

Description: Like OPS5, this measure contemplated the development of a procedure for use by pilots operating under Instrument Flight Rules on Runway 30. The procedure established a departure track at 285 degrees, which avoids more densely populated residential areas.

2004 FAA Record of Approval: FAA Action: *Approved as voluntary when a pilot requests the turn, when traffic, weather, and airspace safety efficiency conditions permit ATC to approve the request. Current airspace constraints to the north and south of Martin County significantly curtail the use of this procedure. As airspace allocations are adjusted by Air Traffic, the NCP may be updated to analyze additional compliance with this measure.*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: The DPs were published in August 2009 and became effective and available for pilot use December 17, 2009. Voluntary compliance is encouraged through on-airport signage, FBO posters, and publication in pilot information materials, pilot websites, and information in manuals.

Recommendation for this NCP: *Continue as a voluntary measure.*

OPS7 - Voluntary Takeoff and Landing Procedures

Purpose: Encourages the use of National Business Aviation Association (NBAA) close-in noise abatement departure profile (NADP), Aircraft Owners and Pilots Assoc. (AOPA) and/or manufacturer noise abatement takeoff and landing procedures.

Description: This measure recommends that pilots utilize takeoff and landing procedures for noise abatement purposes.

2004 FAA Record of Approval: FAA Action: *Disapproved pending submission of additional information to make an informed analysis. This measure relates to flight procedures under 49 U.S.C. 47504(b). Information required to complete FAA action on this measure includes calculating the estimated benefits to noise-sensitive land uses near the airport. This information can be provided using either DNL noise contour or using supplemental metrics such as describing the benefits with versus without the measure, on a single event basis.*

The effectiveness of noise abatement procedures will vary on an airport-by-airport basis. There are three basic profiles – near, distant, and standard. Given variations in aircraft performance, it is possible for one aircraft type to use one type of procedure and another aircraft to use a different procedure to achieve noise reduction over the same community. The techniques used to determine the noise benefits of changes in approach setting are still under study in the U.S.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Additional data and information demonstrating a benefit within the 65 DNL noise contour was provided to the FAA and

subsequently the measure was approved. Fair Wind Air Charter, based at SUA, tested a noise abatement departure profile (NADP) and the information was presented to the ANAC at their meeting on April 26, 2007. On June 26, 2008 the airport consultant team, with a grant provided by the Florida Department of Transportation (FDOT), collected field data of aircraft takeoff noise testing several noise abatement departure profiles. Noise measurement equipment was placed in the field to record noise levels during each takeoff. Observers were present at two monitoring locations to collect noise level data. Stuart Jet Center and Galaxy Aviation donated fuel and Fair Wind Charter donated the aircraft and pilots. Lear 31 and Lear 55 aircraft were used during the demonstration. These aircraft are representative of the types of jets currently dominating the airport fleet.

The local Air Traffic Control Tower assigned straight-out takeoff flight tracks to simulate tracks that will be routine when the FAA finalizes the noise abatement departure track for Runway 12. The demonstration tested the Fair Winds Charter Departure Profile and the NBAA Close-In Departure Profile. Each profile was flown twice by each aircraft. A member of the ANAC volunteered as an observer in the aircraft during each departure. This volunteer recorded crucial data pertaining to weather and aircraft performance. Single event noise contours were developed and analyzed with the data collected during the demonstration. The consultant recommended the NBAA Close-In Departure Profile because it proved to benefit residents closer to the airport, reducing single event takeoff noise levels between 5 and 7 decibels (dB). The ANAC directed airport staff to begin promoting the voluntary use of the NBAA departure procedure immediately through the Pilot Information Program.

Recommendation for this NCP: Continue as a voluntary measure.

OPS8 - Install Flight Tracking System (NOMS)

Purpose: Record flight tracks and operations to help monitor the effectiveness of noise compatibility operational measures and to assist Martin County in the determination of the future need to update the noise exposure maps.

Description: Install a flight tracking system to assist airport staff in the collection of aircraft operations data to monitor the effectiveness of NCP operational measures.

2004 FAA Record of Approval: FAA Action: Approved. *The flight tracking system must technically be able to interface with the FAA equipment and operations, and must comply with FAA data download requirements. Eligibility for Federal funding and the scope of the proposed project will be determined at the time of application. For purposes of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes by in-situ measurement of any pre-set noise thresholds and shall not be used for mandatory enforcement of any voluntary measure.*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: FAA approved this measure and the Florida Department of Transportation (FDOT) provided an 80% grant for the procurement of the system. Airport staff and consultant worked with the FAA Orlando Airport District Office and the FAA ATCT at SUA to develop system specifications and installation. Bruel & Kjaer (formerly Lochard) was the selected vendor to install the NOMS. Installation began in 2011 and final acceptance was completed in November 2012.

Recommendation for this NCP: This measure has been implemented. Future upgrades are anticipated as technology advances. In the past, developers of flight track and noise monitoring systems modify their programs and equipment every few years as technology advances. Trends indicate that this will continue with the advancement of NEXTGEN and other planned technological improvements. The

effectiveness of this measure through the 2017 planning period will depend upon Martin County's ability to upgrade the existing systems as these advancements come on-line.

OPS9 - Pilot Information Program

Purpose: Educate and inform pilots about the Airport's noise abatement program procedures.

Description: This measure contemplated the development of a program designed to inform pilots of noise sensitive areas around the Airport and to encourage pilot participation in the Noise abatement Program. Pilot participation in the Noise Abatement Program has been promoted by providing noise abatement program information in a variety of ways including magazines, manuals, letters and Jeppesen inserts, brochures and poster.

2004 FAA Record of Approval: FAA Action: Approved in Concept. *The methods to publicize this noise compatibility program are approved. Prior to release, each publicity measure must be approved for wording and content by the appropriate FAA office, and should clearly state that the noise abatement measures are voluntary, and that pilots, while encouraged to request the noise abatement departure heading, are always required to follow the directions provided by air traffic control.*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: The ANAC and Airport staff have designed and distributed pilot brochures, posters, signage and Jeppesen inserts describing the Martin County program. SUA noise abatement materials have been distributed to all based aviation businesses and to all U.S. fractional ownership companies. Information is also posted on the AOPA website and recorded on the AWOS. Notification letters are mailed to those who operate during voluntary curfew hours.

Recommendation for this NCP: Continue the Pilot Information Program.

OPS10 - Monitor Air Traffic Control Frequencies

Purpose: To record and review ATC/pilot radio communications to monitor operations when the Tower is closed.

Description: The intent of this measure is to provide a method by which Airport Staff can monitor and track airport operations on UNICOM radio transmissions during voluntary curfew hours.

2004 FAA Record of Approval: FAA Action: Approved. *This measure would involve purchasing over-the-counter radio-receiving equipment that is generally available to the public. The stated purpose is to determine how effective the noise abatement measures are. Information will be used to educate the pilots and community about the program, and will be used to assist in addressing citizen complaints. Eligibility for Federal funding and scope of the proposed project will be determined at the time of application. For purposes of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes and shall not be used for mandatory enforcement of any voluntary measure.*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: This measure was implemented as an added feature to the Noise Operations Monitoring System (OPS8).

Recommendation for this NCP: This measure has been implemented and is not recommended for further implementation.

OPS11 - Engine Run-up Procedures and Facilities

Purpose: To provide for set hours (8 a.m. until 6 p.m.) during which engine run-ups can occur and to study a potential new location for the engine run up pad.

Description: This was the continuation of existing procedures for engine maintenance run-ups. The previous measure limited run-up activities during the night hours (10 p.m. to 7 a.m.). The revised measure extended the hours to discourage run-up activities during the hours of (6 p.m. to 8 a.m.). Run-up's are limited to specific maintenance run-up areas and to sites on the airport where existing structures offer shielding.

2004 FAA Record of Approval: FAA Action: *Approved to continue the current procedure as a voluntary measure. Approved for further study of additional run-up locations.*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: At the February 2005 Noise Abatement Workshop, information was disseminated concerning the revisions to the voluntary maintenance run-up hours. The voluntary maintenance run-up hours are promoted via the Pilot Information.

Recommendation for this NCP: *Continue the current procedure as a voluntary measure.*

OPS12 - Noise Barriers

Purpose: To study the benefits of the construction of noise barriers to reduce the impact of aircraft ground noise.

Description: Preliminary locations of noise berms and barriers were discussed following the 2004 FAR Part 150 Noise Study.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: The ANAC determined that noise barriers would not be effective under current conditions. This measure was not implemented.

2004 FAA Record of Approval: FAA Action: *Approved for further study.*

Recommendation for this NCP: *Not recommended for implementation.*

5.2 Status of 2004 NCP Recommended Land Use Compatibility Measures, Mitigation Programs and Martin County Recommendations for Future Implementation

Land use compatibility measures are designed to provide additional relief to residents surrounding the airport who remain impacted after the operational measures have been implemented. These measures are also developed to prevent future incompatibilities with airport and aircraft operations.

Land use compatibility planning measures fall within 2 general categories: (1) preventive measures and (2) remedial measures. Preventive measures are implemented to decrease the potential for the introduction of new non-compatible land uses. Remedial measures are implemented to correct or eliminate existing non-compatible land uses. The land use measures evaluated in the 2004 NCP and re-evaluated in this 2012 NCP included the following alternative measures.

LU1 – Noise Zoning
LU2 – Real Estate Disclosure
LU3 – Site Plan Review
LU4 – Citizens Noise Committee
LU5 – Florida Statute 333, Airport Zoning

LU6 – Voluntary Land Acquisition
LU7 – Redevelopment Program
LU8 – Voluntary Sound Insulation Program
LU9 – Voluntary Avigation Easement Acquisition Program

The paragraphs below describe the history of each land use measure and the status of local implementation by Martin County. Also described is the FAA's action taken in the 2004 ROA, and the BOCC's recommendation for continued implementation through this NCP, where appropriate. *Note: INM noise exposure contours included in the 2012 NEM and 2017 NEM reflect the status of these measures (SUA 2011 NEM Document, Chapter 3).*

LU1 - Noise Zoning

Purpose: To establish airport zoning overlays preventing new non-compatible uses, requiring sound insulation and disclosure notice upon sale.

Description: This measure promotes land use compatibility through changes to local zoning regulations. As already stated, the BOCC adopted the 60 dB DNL level as the local standard for land use compatibility planning purpose. Martin County initiated the recommended noise zoning changes in 2006. The Noise Zoning ordinance became effective in September 2012. Under this measure, Martin County and the City of Stuart will establish noise overlay zoning districts corresponding with the 2007 60-65 dB DNL and 65-70 dB DNL noise contours, as outlined below:

2004 FAA Record of Approval: FAA Action: Approved in part, disapproved in part. *This is a preventative land use measure and is within the authority of the local land use planning jurisdictions.*

*The narrative at pages 5-19 and 5-20 describe the zones as follows. Zone A would prohibit new noise sensitive development within the DNL 65 dB and greater noise contour, including residential development. Nonresidential commercial development would require sound attenuation. Zone B would prohibit new schools, child care, and similar noise sensitive uses. Other nonresidential commercial development would require sound attenuation. **These designations are approved.***

*We note that LU7 suggests an intention to limit new land uses in Zone A and B to compatible uses; however, residences are not specifically mentioned in the description of prohibited land uses in Zone B, and are assumed to be permitted in that zones's DNL 60-65 dB noise contour. **To the extent that Zone B is intended to permit new residential land uses, this aspect of Zone B is disapproved for purposes of Part 150.** It would not be reasonably consistent with achieving the goal of reducing noncompatible land uses and preventing the introduction of additional noncompatible uses (49 U.S.C. section 47504(b)(1)(B)) to allow new residences within the DNL 60-65 dB noise contour since the local government has adopted the DNL 60-65 dB standard as locally significant. Neither would it be consistent with the FAA's land use mitigation policy published in 1998. Further mitigation of any noise-sensitive development that occurs after October 1, 1998, will not be eligible for Part 150 approval under the FAA's 1998 policy. Disapproval under Part 150 does not prevent the local planning jurisdictions from carrying out their own land use plans to meet local needs.*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Martin County has implemented the recommended zoning regulations. The City of Stuart is in the process of adopting similar regulations. (See **Appendix G** for copies of Martin County's implementing documents and a

letter from the City of Stuart outlining their actions.) Martin County's new zoning code is described as follows:

Martin County Ordinance Number 919 (itemized summary)

Sec.3.33 – Noise Compatibility Overlay, creates the following noise compatibility zones, based upon the current approved noise exposure maps:

Zone A - DNL 65 dB and above district (currently located on airport property)

- a) Zone A includes the land area within the DNL 65 dB and greater noise exposure contour intervals.
- b) Prohibited Uses. No new noise sensitive development, including residences, hospitals, churches, libraries, cultural centers, childcare centers, preschools, nonairport-related educational facilities, or similar facilities shall be permitted within Zone A.
- c) Noise level reduction. Office, commercial, or other nonresidential uses or structures where the public is received, which are permitted by the overlay zone, would provide and include noise level reduction measures in the design and construction of all areas where the public is received to achieve an interior noise level reduction (NLR) of 30 dB. Any addition of 100 square feet or more living space to existing dwellings or other noise sensitive structures would also be subject to the 30 dB NLR requirement.

Zone B - DNL 60 to 65 dB district

- a) Zone B includes the land area within the DNL 60 to 65 dB noise contour intervals.
- b) Prohibited Uses. No new schools, childcare centers or similar noise sensitive uses shall be permitted within Zone B.
- c) Noise level reduction. Office, commercial, or other nonresidential uses or structures where the public is received, which are permitted by the underlying zone, would provide and include noise level reduction measures in the design and construction of all areas where the public is received to achieve an interior noise level reduction (NLR) of 25 dB. Any addition of 100 square feet or more living space to existing dwellings or other noise sensitive structures would also be subject to the 25 dB NLR requirement.

Recommendation for this NCP: Continue enforcement of the Noise Overlay Zones in areas under the jurisdiction of Martin County through the Martin County Building Department. Continue enforcement in areas under the jurisdiction of the City of Stuart carried out by the City of Stuart.

LU2 - Real Estate Disclosure

Purpose: To provide a method of disclosure of properties location within the DNL 60 dBA and higher noise contours.

Description: This measure requires the development of a method of disclosure to the general public and property owners of the parcels' locations within the 60 dB DNL and higher noise contours and the possibilities of aircraft noise and overflights.

2004 FAA Record of Approval: FAA Action: Approved.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: In 2007 the ANAC voted not to support mandatory disclosure, therefore this measure was not implemented.

Recommendation for this NCP: Not recommended for future action.

LU3 - Site Plan Review

Purpose: To provide a mechanism for the Airport to review and comment on proposed development plans for property within the DNL 60 dBA and greater contours.

Description: This measure contemplated the use of the Intergovernmental Coordination Element of the Comprehensive Plan to facilitate site plan review if the property is within the Airports DNL 60 dB and above noise contour intervals.

2004 FAA Record of Approval: FAA Action: Approved.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Airport staff review development plans in areas around the airport within the noise overlay zones.

Recommendation for this NCP: Continue internal implementation.

LU4 - Citizen's Noise Committee

Purpose: Establish a committee for the purpose of monitoring the effectiveness and implementation of NCP measures and assisting with community education.

Description: This measure contemplated a committee consisting of City and County residents, for the purpose of monitoring the effectiveness and implementation of NCP measures.

2004 FAA Record of Approval: FAA Action: Approved.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: This measure was implemented by the Board of County Commissioners under Resolution 03-8.22 which outlines the make-up and membership of the Airport Noise Advisory Committee (ANAC). The Committee is responsible for making recommendations to the BOCC concerning the implementation of the operational and land use mitigation measures approved in the 2004 NCP and those measures that will be approved by the FAA in its ROA for this NCP.

Recommendation for this NCP: Maintain the Airport Noise Advisory Committee for the purposes of monitoring the effectiveness and implementation of NCP measures.

LU5 - Florida Statute 333 Airport Zoning

Purpose: To incorporate provisions consistent with F.S. Chapter 333, Airport Zoning.

Description: This measure recognizes existing Florida law that refers to land use compatibility, zoning regulations and requirements, as well as airport hazards as they pertain to development of structures exceeding FAA obstruction standards and to airport safety.

2004 FAA Record of Approval: FAA Action: Approved.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: The overlay zones described in LU1 include the provisions of F.S. Chapter 333.

Recommendation for this NCP: Continue enforcement of the Noise Overlay Zones in areas under the jurisdiction of Martin County through the Martin County Building Department. Enforcement in areas under the jurisdiction of the City of Stuart will be carried out by the City of Stuart.

LU6 - Voluntary Land Acquisition

Purpose: To acquire on a voluntary basis or provide sales assistance to homeowners within the DNL 60 dB and higher noise contour intervals.

Description: A voluntary acquisition and relocation program for eligible property owners within the DNL 60 dB and higher noise contours. The program is developed in accordance with procedures outlined in the "Uniform Relocation Assistance and Real Property Acquisition Act of 1970".

2004 FAA Record of Approval: FAA Action: Approved. The specific identification of structures recommended for inclusion in the program and specific definition of the scope of the program will be required prior to approval for Federal funding.

The FAA Federal guidelines state that impacts at noise levels of DNL 65 dB and greater are "significant" and lesser noise levels of DNL 55 to 64 dB are "moderately" impacted, (see compatible land use guidelines in Table 1 of Part 150). Properties located at levels less than the Federal "significant" criterion, such as the DNL 60 dB identified as locally significant by the airport sponsor, will receive a much lower priority for Federal financial assistance.

The airport operator has adopted a local deviation from the Federal land use compatibility guidelines published in FAR Part 150, Table 1 (see revised 2004 NCP Chapter 5, Table LU.1). The FAA notes that the adopted guidelines allow construction of non-compatible uses within those noise levels defines as "significant" by the airport operator. The FAA will not approve mitigation of noise-sensitive structures built after October 1, 1998.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: In December 2003, ANAC recommended immediate implementation of this measure. Participation is voluntary on the part of eligible homeowners. On August 27, 2005, Martin County accepted a grant from the FAA in the amount of \$2,266,805 for the initiation of the Home Acquisition Program (HAP) and allowed the Martin County HAP to begin offering to purchase and relocate nine of the 23 property owners on S.E. 18th Street, Stuart. The 18th street project area is also located within the Runway 12 Runway Protection Zone (RPZ).⁷ On August 1, 2006, Martin County accepted a second grant from FAA in the amount of \$5,000,000 to continue the Phase 1 program to allow the acquisition and relocation of the 14 remaining homes. All homes in the Phase 1 project area have been acquired, homeowners have been relocated and the property has been cleared and restored.

On April 7, 2009 Martin County initiated a Noise Land Inventory and Reuse Plan for the twenty-three properties in the Phase 1 project area, in accordance with the guidelines of FAA Program Guidance Letter 08-02. FAA approved the plan on June 17, 2010. The Phase 1 project area is located within the Runway 12 RPZ. Phase 1 property is to remain vacant for noise compatibility purposes, approach protection and to provide a noise buffer.

⁷ The purpose of the Runway Protection Zone (RPZ) is to enhance the protection of people and property on the ground. FAA standards outline that where practical, airport sponsors should own the property within the RPZ. The area is to be clear of all above ground objects. Activities which lead to an assembly of people are highly discouraged. Any planned use of the property would require FAA review and approval.

In September 2009 Martin County accepted a third grant from the FAA in the amount of \$4,760,000.00 for the initiation of the Phase 2 Program. The relocation plan for Phase 2 of the HAP was initiated in September 2008. As part of this study, homeowners indicated their interest in modifying the mitigation options for the Phase 2 project area to provide purchase/relocation for those wishing to move and sound insulation for those wishing to remain in the neighborhood. The ADO approved this hybrid program in December 2008. The Noise Land Inventory and Reuse Plan for the Phase 2 project area is underway. The report will catalog properties purchased and sound insulated, and properties sound insulated only, and will describe the disposal of properties acquired. Each property purchased will be re-sold and proceeds returned to the program. The property deed includes a perpetual avigation easement.

Figure 5-1 shows the completed Phase 1 project area and future phases of the Noise Mitigation Program on the north side of the airport, in the City of Stuart. The 2017 DNL 60 dB and 65 dB noise contours are shown as an overlay. **Figure 5-2** illustrates the on-going Phase 2 and potential future phases of the Noise Mitigation Program on the south side of the airport. The 2017 DNL 60 dB and 65 dB noise contours are shown as an overlay. Homeowners located within these project areas may be eligible for either acquisition or sound insulation. Phase 2 properties that are acquired by Martin County are sound insulated and re-sold.

Recommendation for this NCP: Continue implementation of the voluntary land acquisition program. Future implementation will be in accordance with guidance outlined in PGL 12-09, Eligibility and Justification Requirements for Noise Insulation Programs.

LU7 - Redevelopment Program

Purpose: To encourage compatible re-development within the DNL 65-70 and 60-65 dB noise contours.

Description: This measure encourages compatible redevelopment of acquired property within the DNL 65-70 and 60-65 dBA noise contour intervals. At a joint meeting of the Stuart City Council and Martin County Board of County Commissioners in September 2005, both groups agreed to work jointly and with the ANAC in the development of a program addressing the future use of property acquired by Martin County as part of the Home Acquisition Program.

2004 FAA Record of Approval: FAA Action: Approved to prepare a redevelopment plan for property acquired as part of this Record of Approval.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: On April 7, 2009 Martin County initiated a Noise Land Inventory and Reuse Plan for the twenty-three properties in the Phase 1 project area, in accordance with the guidelines of FAA Program Guidance Letter 08-02. FAA approved the plan on June 17, 2010. The Phase 1 project area is located within the Runway 12 RPZ. Phase 1 property is to remain vacant for noise compatibility purposes, approach protection and to provide a noise buffer. The Noise Land Inventory and Reuse Plan for the Phase 2 project area is underway. The report will catalog properties purchased and sound insulated, and properties sound insulated only, and will describe the disposal of properties acquired. Each property purchased will be re-sold and proceeds returned to the program. The property deed includes a perpetual avigation easement. Property owners receiving sound insulation executed avigation easements. A copy of the deed attached to homes to be re-sold and the recorded avigation easements for the homes sound insulated are provided in **Appendix H**.

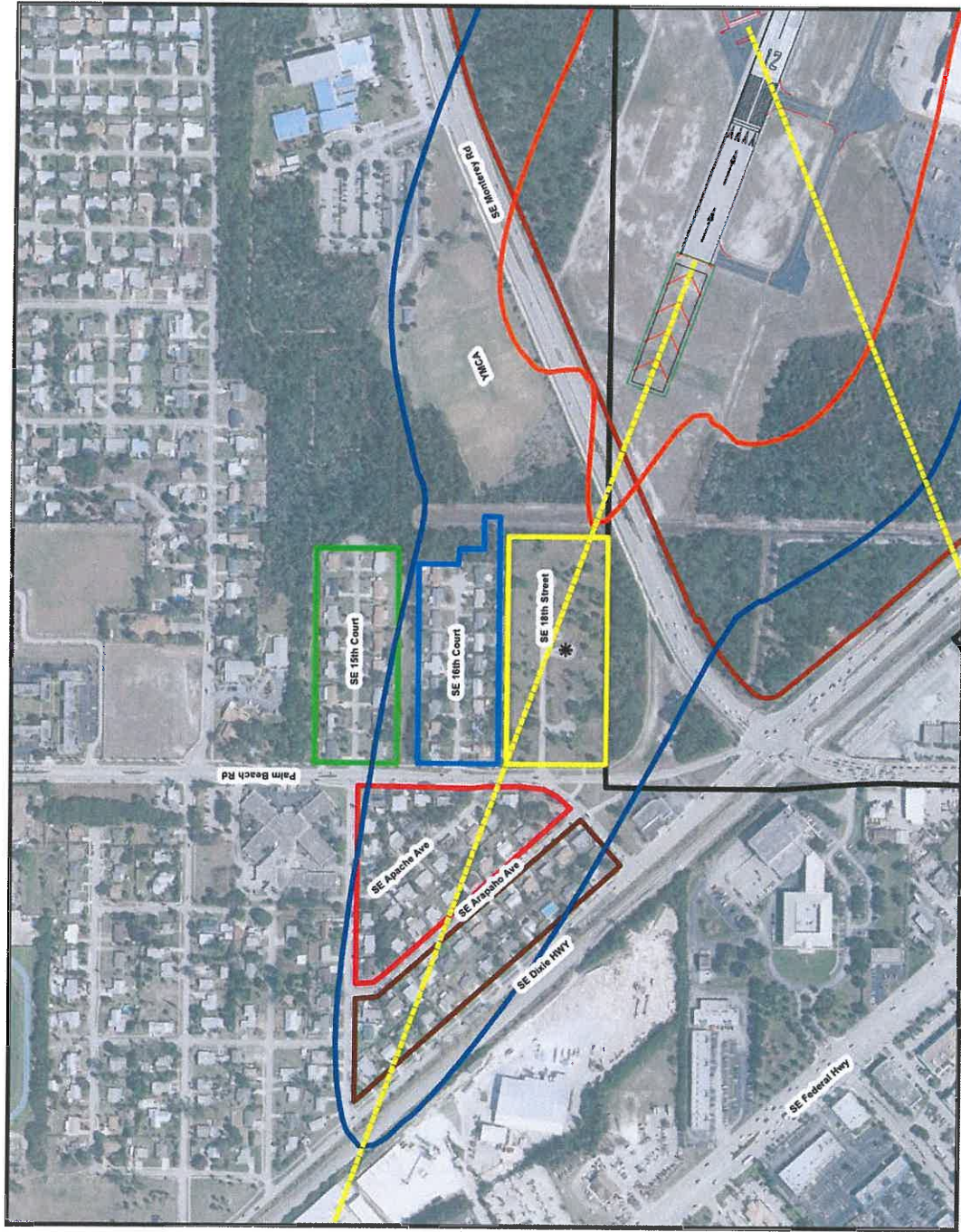
Recommendation for this NCP: Continue implementation of the Redevelopment Program in qualifying areas within the five-year forecast DNL 65-70 and 60-65 dB noise contour intervals. The reuse plan

will be updated by Martin County to reflect future acquisitions resulting from this NCP. Future implementation will be in accordance with guidance outlined in PGL 12-09, Eligibility and Justification Requirements for Noise Insulation Programs.

LU8 - Voluntary Sound Insulation Program

Purpose: To provide residential sound insulation treatment to qualifying homes located within the five-year forecast 2015 DNL: 65-70 dB and 60-65 dB noise contour intervals.

Description: This mitigation measure contemplates the application of acoustical treatment standards through renovation of existing structures, i.e. NLR 30 dB within the five-year forecast 65 to 70 dB DNL contour and NLR 25 dB within the five-year forecast 60 to 65 dB DNL. The program is voluntary and subject to funding availability.



Martin County Airport
Witham Field

Figure 5-1
Noise Mitigation Program
Project Phasing
Phases 5, 6, and 7

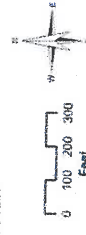
- LEGEND**
- Airport Boundary
 - Extended Runway Centerline
 - * Noise Monitor

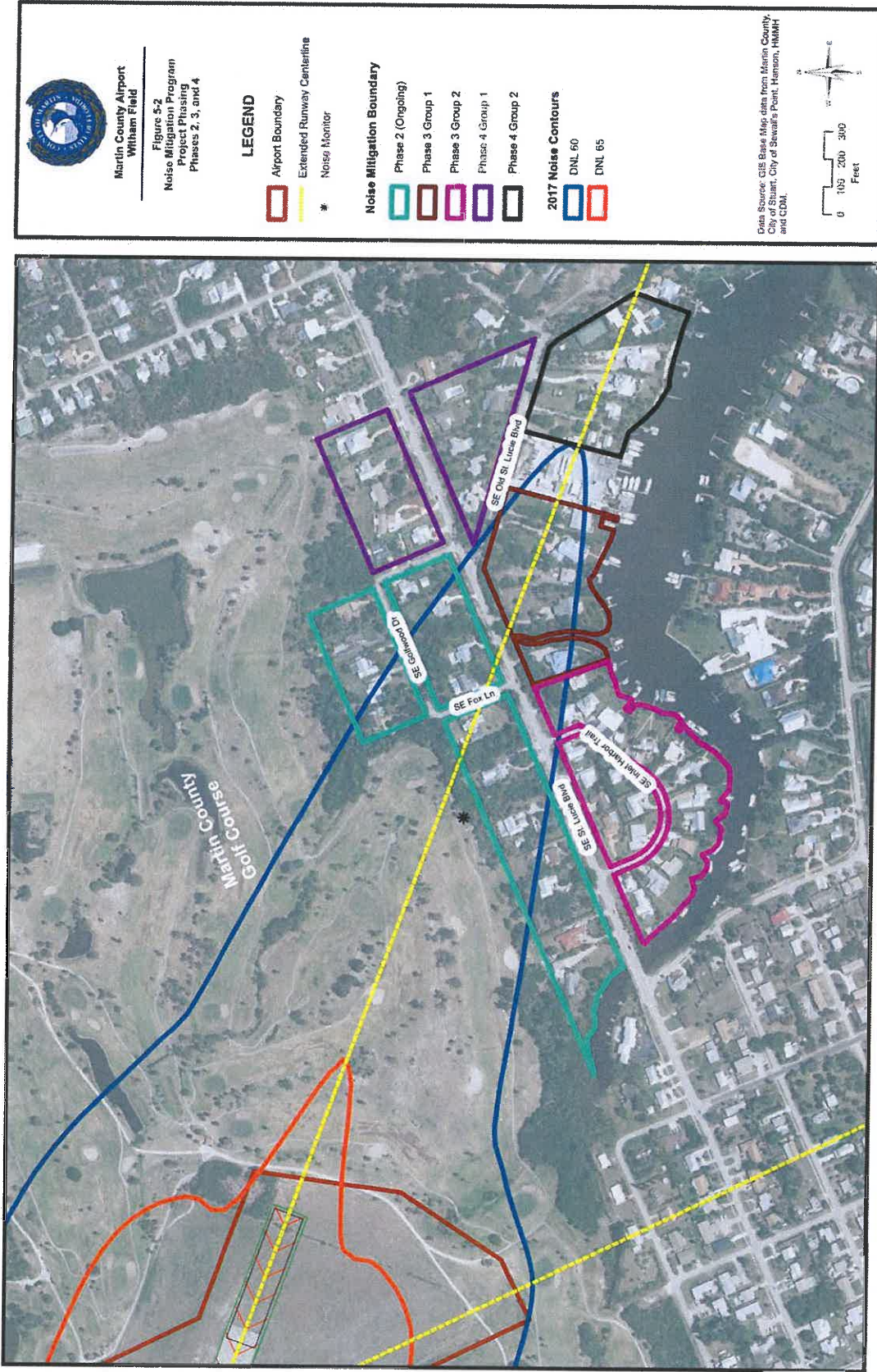
- Noise Mitigation Boundary**
- Phase 1 (Completed)
 - Phase 5 Group 1
 - Phase 5 Group 2
 - Phase 6
 - Phase 7

- 2017 Noise Contours**
- DNL 60
 - DNL 65

- Municipal Boundary**
- City of Stuart

Data Source: GIS Base Map data from Martin County, City of Stuart, City of Seawall's Point, Hanson, HMMH and CDNI.





2004 FAA Record of Approval: FAA Action: Approved. The specific identification of structures recommended for inclusion in the program and specific definition of the scope of the program will be required prior to approval for Federal funding.

The FAA Federal guidelines state that impacts at noise levels of DNL 65 dB and greater are “significant” and lesser noise levels of DNL 55 to 64 dB are “moderately” impacted, (see compatible land use guidelines in Table 1 of Part 150). Properties located at levels less than the Federal “significant” criterion, such as the DNL 60 dB identified as locally significant by the airport sponsor, will receive a much lower priority for Federal financial assistance.

The airport operator has adopted a local deviation from the Federal land use compatibility guidelines published in FAR Part 150, Table 1 (see revised 2004 NCP Chapter 5, Table LU.1). The FAA notes that the adopted guidelines allow construction of non-compatible uses within those noise levels defined as “significant” by the airport operator. The FAA will not approve mitigation of noise-sensitive structures built after October 1, 1998.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: This measure has been implemented and is currently ongoing. In September 2009 Martin County accepted a grant from the FAA in the amount of \$4,760,000 for the Phase 2 Noise Mitigation Program. As part of this Phase, eligible property owners were offered sound insulation (with an aviation easement attached) OR acquisition with no relocation benefits. Acquired homes were sound insulated and returned to the market for sale as surplus noise land. A copy of the Martin County Aviation Easement Agreement is included as **Appendix I**.

Recommendation for this NCP: Continue implementation of the Voluntary Sound Insulation Program for qualifying properties within the 2017 contour DNL 65-70 and 60-65 dBA noise contour intervals. Future implementation will be in accordance with guidance outlined in PGL 12-09, Eligibility and justification Requirements for Noise Insulation Programs.

LU9 - Voluntary Aviation Easement Acquisition Program

Purpose: To purchase easements over residential properties within the 2017 contour DNL 65-70 and 60-65 dBA noise contours.

Description: An easement is a right held by one person to make use of the land of another for a stated purpose. In the context of airport noise compatibility planning the most common form of easement is a positive easement that recognizes and accepts the presence of aircraft over-flights, noise and other emissions. Aviation Easements are obtained for homes participating in the voluntary sound insulation program and they may be purchased from property owners who are eligible, but choose not to participate in a future voluntary home acquisition or sound insulation program. Easements are also obtained for properties that have been acquired, sound insulated, and re-sold.

2004 FAA Record of Approval: FAA Action: Approved. The specific identification of structures recommended for inclusion in the program and specific definition of the scope of the program will be required prior to approval for Federal funding.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: This measure has been implemented as part of the voluntary sound insulation program.

Recommendation for this NCP: Continue implementation for qualified property owners not interested in participating in the future Voluntary Sound Insulation Program.

Chapter 6

Summary of Operational and Land Use Compatibility Planning Measures Recommended for Implementation by the Martin County BOCC

Chapter 5 presented a summary of the status of implementation of previously approved noise abatement and land use compatibility planning measures and recommendations for future implementation through the approval of this NCP. **Table 6-1** identifies the NCP measures recommended for ongoing future implementation, identifies who is responsible for implementing the measure and provides an estimate of the cost of each recommended measure and potential funding sources. In accordance with Part 150.21(d), this NCP will be revised when it is likely that a change has taken place at the airport that will cause a significant increase or decrease in the DNL noise contour of 1.5 dB or greater over noncompatible land uses.

6.1 Program Benefits

The benefits of each program measure are outlined in **Table 6-2**.

Table 6-1. Summary of Existing and Recommended Noise Compatibility Program Measures, Martin County Airport / Witham Field

NCP Measure	Noise Abatement Operational Measures	Disposition Since 2004 ROA	BOCC Recommended Action for this NCP	Estimated Costs	Implementation Schedule	Entity Responsible for Implementation
OPS1	Preferential Runway Use	Implemented on a Voluntary Basis	To Remain – Included as a baseline condition	No cost anticipated with this measure	Ongoing	County
OPS2	Ban Stage I Aircraft	Not Implemented	Not Recommended	NA	NA	NA
OPS3	Voluntary Nighttime Curfew	Implemented	To Remain – Included as a baseline condition	No cost anticipated with this measure	Ongoing	County
OPS4	Voluntary Touch-and-go Limits	Implemented	To Remain – Included as a baseline condition	No cost anticipated with this measure	Ongoing	County
OPS5	Voluntary Noise Abatement Departure Flight Tracks (RWY 12)	Implemented	To Remain – Included as a baseline condition	No cost anticipated with this measure	Ongoing	County
OPS6	Voluntary Noise Abatement Departure Flight Tracks (RWY 30)	Implemented	To Remain – Included as a baseline condition	No cost anticipated with this measure	Ongoing	County
OPS7	Voluntary Takeoff and Landing Procedures	Implemented	To Remain – Included as a baseline condition	No cost anticipated with this measure	Ongoing	County
OPS8	Install Flight Tracking System (Upgrades)	Implemented	To Remain	\$50,000 (County/FAA/FDOT)	2014-2015 Pending availability of funding	County/FDOT/FAA
OPS9	Pilot Information Program	Implemented	To Remain	\$30,000 (County/FDOT)	2014-2015 Pending availability of funding	County/FDOT
OPS10	Monitor Air Traffic Control Frequencies	Implemented	Not Recommended	NA	NA	NA
OPS11	Engine Run-up Procedures/Facilities	Implemented	To Remain – Included as a baseline condition	No cost anticipated with this measure	Ongoing	County
OPS12	Noise Barriers	Options Reviewed	Not Recommended	NA	NA	NA

Table 6-1. Summary of Existing and Recommended Noise Compatibility Program Measures, Martin County Airport / Witham Field,
Continued

NCP Measure	Noise Abatement Operational Measures	Disposition Since 2004 ROA	BOCC Recommended Action for this NCP	Estimated Costs	Implementation Schedule	Entity Responsible for Implementation
LU1	Noise Zoning	Implemented	To Remain--Noise Zoning Overlay adopted by Martin County and in the process of being adopted by the City of Stuart	No cost anticipated with this measure	Ongoing	County
LU2	Real Estate Disclosure	Rejected	Not Recommended	NA	NA	NA
LU3	Site Plan Review	Implemented	To Remain	No cost anticipated with this measure	Ongoing	County
LU4	Citizens Noise Committee	Implemented	To Remain	No cost anticipated with this measure	Ongoing	County
LU5	FS Chapter 333, Airport Zoning	Implemented	To Remain -- Incorporated in LU1	No cost anticipated with this measure	Ongoing	County
LU6	Voluntary Land Acquisition	Partially Implemented	To Remain--Eligible properties within the 2017 DNL 60-65 dB and 65-70 dB noise contour intervals	\$4,500,000 (County/FAA/FDOT)	2013-2017 Pending availability of funding	County/FDOT/FAA
LU7	Redevelopment Program	Partially Implemented	To Remain--Eligible properties within the 2017 DNL 60-65 dB and 65-70 dB noise contour intervals	\$45,000 (County/FAA/FDOT)	2013-2014 Pending availability of funding	County/FDOT/FAA
LU8	Voluntary Sound Insulation	Partially Implemented	To Remain--Eligible properties within the 2017 DNL 60-65 dB and 65-70 dB noise contour intervals	\$13,000,000 (County/FAA/FDOT)	2013-2017 Pending availability of funding	County/FDOT/FAA
LU9	Voluntary Avigation Easement Acquisition	Partially Implemented	To Remain -- Eligible properties within the 2017 DNL 60-65 dB and 65-70 dB noise contour intervals	\$500,000 (County/FAA/FDOT)	2013-2017 Pending availability of funding	County/FDOT/FAA

Table 6-2 Benefits of Operational and Land Use Compatibility Planning Mitigation Measures, Martin County Airport / Witham Field

Recommended Measure		Benefit
Operational Measures		
OPS1	Preferential Runway Use	Promotes utilization of runway system during calm winds, reducing concentration of flight tracks over one neighborhood.
OPS2	Ban Stage 1 Aircraft	Not Recommended.
OPS3	Voluntary Nighttime Curfew	Reduction in impacts associated with operations between 11 PM and 7 AM when over flights are the most disruptive to noise sensitive areas.
OPS4	Voluntary Touch-and-go Limits	Reduction in impacts associated with repetitive and frequent flight over noise sensitive areas.
OPS5	Voluntary Noise Abatement Departure Flight Tracks (RWY 12)	Promotes voluntary use of FAA developed departure procedures (DP) for jet aircraft when taking off to the south over densely populated residential areas.
OPS6	Voluntary Noise Abatement Departure Flight Tracks (RWY 30)	
OPS7	Voluntary Takeoff and Landing Procedures	Promotes voluntary use of NBAA close-in noise abatement departure profile on takeoff by jet operators. Reduces single event noise levels, increases community goodwill and reduces perceived aircraft noise impacts
OPS8	Install Flight Tracking System (Upgrades)	Provides a system for factual data collection and analysis of the implementation of effectiveness of NCP measures.
OPS9	Pilot Information Program	Continues to remind pilots of noise abatement policies and promote the use of noise abatement procedures whenever possible.
OPS10	Monitor Air Traffic Control Frequencies	Not Recommended.
OPS11	Engine Run-up Procedures/Facilities	Reduction in noise impacts associated with engine maintenance run-ups during night time hours in locations that highly impact the community.
OPS12	Noise Barriers	Not Recommended.
Land Use Compatibility Planning Measures		
LU1	Noise Zoning	Establishes noise zones where new residential uses and sensitive receptors are prohibited or require sound insulation modifications for new construction; protects land uses from future non compatible land uses within the locally determined noise level planning standard of DNL 60 dBA.
LU2	Real Estate Disclosure	Not Recommended.
LU3	Site Plan Review	Provides a mechanism for the Airport to review and comment on proposed development plans for property within the DNL 60 dBA and greater contours.
LU4	Citizens Noise Committee	This measure continues the establishment of a committee consisting of City and County residents, for the purpose of monitoring the effectiveness and implementation of NCP measures.
LU5	FS Chapter 333, Airport Zoning	This measure recognizes existing Florida law related to land use compatibility, zoning regulations and airport hazards as they pertain to development of structures exceeding FAA obstruction standards and to airport safety. Incorporated in LU1.

**Table 6-2 Benefits of Operational and Land Use Compatibility Planning
Mitigation Measures, Martin County Airport / Witham Field, Continued**

Recommended Measure		Benefit
LU6	Voluntary Land Acquisition	Conversion of noncompatible residential land uses to compatible land uses by providing a voluntary acquisition and relocation program for eligible property owners within the 2017 DNL 60-65 dBA and DNL 65-70 dBA noise contours.
LU7	Redevelopment Program	Encourages compatible re-development of acquired properties and areas within the 2017 DNL 60-65 and 65-70 dBA noise contours.
LU8	Voluntary Sound Insulation	Conversion of qualifying non compatible residential land uses to compatible land uses by providing for the application of acoustical treatment standards through renovation of existing structures, i.e. within the 2017 DNL 60 to 65 dBA and 65 to 70 dBA noise contours.
LU9	Voluntary Avigation Easement Acquisition	Conversion of non-compatible land uses through the purchase of a perpetual avigation easement agreement over residential properties within the 2017 DNL 60 to 65 dBA and 65 to 70 dBA noise contours.



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

ORLANDO AIRPORTS DISTRICT OFFICE
5950 Hazeltine National Drive
Suite 400
Orlando, FL 32822
Phone: (407) 812-6331 Fax: (407) 812-6978

June 16, 2014

Mr. George M. Stokus
Airport Manager
Martin County Airport / Witham Field
2011 SE Airport Road
Stuart, Florida 34996

Dear Mr. Stokus:

RE: Martin County Airport / Witham Field, Stuart, FL
Noise Compatibility Program Record of Approval

The Federal Aviation Administration (FAA) has evaluated the Noise Compatibility Program (NCP) for Martin County Airport / Witham Field contained in the NCP and related documents submitted to this office under the provisions of 49 U.S.C., Section 47504. The recommended NCP proposed by Martin County is identified by action element number on pages 23 through 39 of the NCP for Martin County Airport / Witham Field.

I am pleased to inform you that the Regional Airports Division Manager has outright approved four (4) of the measures; approval on a voluntary basis was granted for six (6) of the measures; approval-in-part was granted for six (6) of the measures; a decision of disapproval was made for one (1) measure, and No FAA Action was determined to be required for four (4) of the measures because they were not recommended by the Airport Sponsor.

The specific FAA action for each of the NCP measures is set forth in the enclosed Record of Approval (ROA). The effective date of this ROA is June 11, 2014. All of the approval, partial approval and disapproval actions are more fully explained in the enclosed ROA.

COPY

Measure LU1 is a preventative land use measure that is within the authority of the local land use planning jurisdictions. This measure has been approved in part with regard to its applicability to land uses within Martin County planning Zone "A" (DNL 65+ dBA noise contours). This measure has been disapproved in part with regard to its applicability to land uses within Martin County planning Zone "B" (DNL 60 – 64 dBA noise contours) because it does not specifically address the development of new noncompatible land uses within this zone.

Measure OPS1 was disapproved for purposes of 14 CFR Part 150. This measure does not satisfy 14 CFR Part 150 approval criteria because it does not provide an overall reduction in numbers of noise impacted population.

No Action is required by FAA for measures OPS2, OPS10, OPS12 and LU2. Although these measures were evaluated in the study, they are not being proposed for implementation by Martin County.

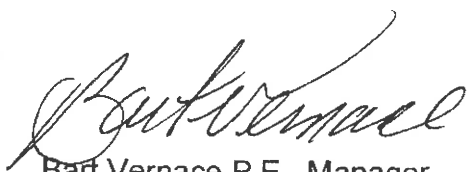
Each airport Noise Compatibility Program developed in accordance with 14 CFR Part 150 is a local program, not a Federal program. The FAA does not substitute its judgment for that of the airport operator with respect to which measures should be recommended for action. The FAA's approval or disapproval of 14 CFR Part 150 Program recommendations is measured according to the standards expressed in 14 CFR Part 150 and the Aviation Safety and Noise Abatement Act of 1979, (49 U.S.C. 47501-47507) and is limited to the following determinations:

- (a) The Noise Compatibility Program was developed in accordance with the provisions and procedures of 14 CFR Part 150;
- (b) Program measures are reasonably consistent with achieving the goals of reducing existing noncompatible land uses around the airport and preventing the introduction of additional noncompatible land uses;
- (c) Program measures would not create an undue burden on interstate or foreign commerce, unjustly discriminate against types or classes of aeronautical uses, violate the terms of airport grant agreements, or intrude into areas preempted by the Federal Government; and
- (d) Program measures relating to the use of flight procedures can be implemented within the period covered by the Program without derogating safety, adversely affecting the efficient use and management of the Navigable Airspace and Air Traffic Control Systems, or adversely affecting other powers and responsibilities of the Administrator prescribed by law.

Specific limitations with respect to FAA's approval of an airport NCP are delineated in 14 CFR Part 150, Section 150.5. Approval is not a determination concerning the acceptability of land uses under Federal, state, or local law.

FAA approval does not by itself constitute a commitment by FAA to implement specific noise compatibility measures. FAA approval of some measures may require preparation of an Environmental Assessment (EA) under the National Environmental Policy Act (NEPA). Further, approval of a plan does not commit FAA to financially assist in the implementation of the Program nor are all measures covered by the Program necessarily eligible for grant-in-aid funding from the FAA under the Airport and Airway Improvement Act of 1982 (AIP). Where Federal funding is sought, requests for project grants should be submitted to the FAA Orlando Airports District Office.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bart Vernace".

Bart Vernace P.E., Manager
Orlando Airports District Office

1 Enclosure (ROA)

cc:
APP-400
ASO-610
ASO-7

FEDERAL AVIATION ADMINISTRATION

**RECORD OF APPROVAL
14 CFR PART 150
NOISE COMPATIBILITY PROGRAM**

**Martin County Airport / Witham Field
Stuart, Florida**

Randy Hyman

Regional Counsel, ASO-7

✓

CONCUR

NONCONCUR

11th June 2014

Date

Kevin A. Gelfert

Airports Division Manager
Southern Region

✓

APPROVED

DISAPPROVED

June 11, 2014

Date

RECORD OF APPROVAL
Martin County Airport / Witham Field
Stuart, Florida

The Martin County Airport / Witham Field (SUA), Stuart, Florida is owned and operated by Martin County, Florida (County or Sponsor). The County developed a Noise Compatibility Program (NCP) that describes current and future land uses around the Airport based on the parameters established in Title 14 Code of Federal Regulations (CFR) Part 150, Airport Noise Compatibility Planning. The NCP contains the County's recommendations to implement 17 program measures, including nine (9) Operational measures and eight (8) Land Use measures¹. All 17 of these measures were previously approved, in whole or in part, by the Federal Aviation Administration (FAA) in a 2004 Record of Approval (2004 ROA) as part of an earlier noise program submitted by the Sponsor.

This updated NCP was submitted to FAA subsequent to a determination by the FAA that the associated Noise Exposure Maps (NEMs), submitted by the County in September 2010, were in compliance with applicable requirements of 14 CFR Part 150 in effect on December 6, 2011, the date the FAA's determination was published in the Federal Register. The updated NCP was prepared by the County to "address the continued implementation of the noise compatibility operational and land use compatibility planning measures approved by the FAA in the 2004 ROA, based on the changes in noise exposure documented in the 2010 NEM document."²

The mitigation measures listed herein are those for which the Sponsor has requested FAA approval. FAA approval indicates only that the actions would, if implemented, be consistent with the purposes of 14 CFR Part 150. The FAA has provided technical advice and assistance to the Airport to ensure that the operational elements are feasible (see 14 CFR §150.23(c)). Nevertheless, approval of a measure does not constitute a FAA funding commitment or decision to implement that measure. The FAA will make funding eligibility determinations as funds are requested by the County. Later decisions concerning possible implementation of measures approved in this ROA will be subject to all applicable environmental compliance and other procedures and requirements including, but not limited to, the National Environmental Policy Act and Section 106 of the National Historic Preservation Act.

¹ The NCP, like the ROA below, identifies 12 Operational measures and 9 Land Use measures. However, three of the Operational measures (OPS2, 10 & 12) and one of the Land Use measures (LU2) were not recommended by the Sponsor, and no FAA action is requested.

² NCP at 7.

The FAA's approval or disapproval of each specific measure proposed by an airport sponsor in an ROA is determined by applying approval criteria prescribed in 14 CFR §150.35(b). Only measures that meet the approval criteria can be approved and considered for Federal funding eligibility. When an ROA measure is disapproved by the FAA, airport sponsors are not precluded from and are encouraged to work with the FAA and their communities outside of the rigors of the Part 150 process to implement initiatives that provide noise benefits to the community.

There follows a summary of the proposed Operational and Land Use measures proposed by the County in the NCP. As previously stated, no new measures have been added to the NCP that were not already included in the 2004 NCP. The summaries include a description of the efforts undertaken by the Sponsor to implement the measures since the issuance of the FAA's 2004 ROA. The summaries are derived from the County's NCP and do not represent the opinions or decisions of the FAA.

It is important to note that Martin County has adopted the DNL 60 dBA noise contour as its local standard for land use compatibility planning purposes. This is lower than the FAA's standard of DNL 65 dBA. Although it has been proposed over the course of the last few years, the City of Stuart has not adopted a lower local standard for land use compatibility planning purposes. Therefore the FAA's standard land use compatibility guidelines as contained in 14 CFR Part 150, Appendix "A", Table 1, apply to land uses within the jurisdiction of the City.

OPERATIONAL MEASURES

OPS1 – Preferential Runway Use

Purpose: To promote the use of Runway 12 during calm wind conditions (0 to 5 Knots).

Description: This measure promotes the use of Runway 12 to optimize runway utilization under calm wind conditions (0 to 5 knots). These conditions occur approximately 10% of the time.

2004 FAA Record of Approval: FAA Action: *"Disapproved for purposes of Part 150. This measure does not satisfy FAR Part 150 approval criteria because it does not provide an overall reduction in numbers of noise impacted population."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Preferential runway use is promoted on a voluntary basis through pilot information materials which include posters, pilot brochures, and signage.

Sponsor's Recommendation for this NCP: Continue as a voluntary measure.

FAA Action for this NCP: Disapproved for purposes of 14 CFR Part 150. This measure does not satisfy 14 CFR Part 150 approval criteria because the analysis in the NCP does not demonstrate the measure's noise benefits on the DNL 60+ dBA noise contour in Martin County or the DNL 65+ dBA noise contour in the City of Stuart. However, the Sponsor may continue implementing preferential runway use as a voluntary measure.

OPS2 – Ban Stage 1 Aircraft

Purpose: To study and analyze the future ban of Stage 1 aircraft at SUA.

Description: The 2002 NEM Study reviewed historical airport operational data to identify the types of aircraft that frequently utilize the Martin County Airport. The historic data shows a small number of Stage 1 aircraft occasionally utilize the airport (approximately 0.14% of total operations).

2004 FAA Record of Approval: FAA Action: *"Disapproved for purposes of Part 150. The analysis contained in the NCP states that implementing a ban on Stage 1 aircraft would not impact the noise contour used for comparison in this study (2007, with and without program measures). Also, the FAA notes that Measure LU1, may allow construction of new residences within the DNL contour selected by the airport sponsor as locally significant (i.e., DNL 60-65 dB). Local actions to permit new incompatible construction in a DNL contour selected by the airport sponsor as locally significant would not be reasonably consistent with achieving the goal of reducing noncompatible uses (49 U.S.C. section 47504 (b)(1)(B), and Part 150 section 150.35(b)(1)). Also, to approve a measure under Part 150, it must not be unjustly discriminatory (section 150.35(b)(1))."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: This measure was not formally implemented.

Sponsor's Recommendation for this NCP: Not recommended for implementation

FAA Action for this NCP: no FAA Action required.

OPS3 - Voluntary Night Time Curfew

Purpose: To strongly discourage aircraft operations during voluntary nighttime curfew hours of 11 p.m. through 7 a.m. daily.

Description: This measure discourages aircraft operations (landings and takeoffs) during voluntary nighttime curfew hours of 11 p.m. through 7 a.m. daily.

2004 FAA Record of Approval: FAA Action: *"Approved as a voluntary measure. The NCP analysis assumes high rate of compliance with this measure based on current compliance rates. This measure is proposed to be accomplished with continued pilot education. There will be no mandatory enforcement."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: To track voluntary compliance with this measure, Airport staff has maintained operations logs during hours when the tower was closed. Letters and pilot education materials are sent to curfew operators. The Airport Noise Advisory Committee (ANAC) reviews monthly Curfew Reports with particular emphasis on jet operations due to the high level of community annoyance associated with nighttime jet operations. The installation of the Noise Operations Monitoring System (NOMS) recommended as OPS8 in the 2004 NCP has simplified monitoring and reporting of curfew operations. This measure has been implemented through the Pilot Information Programs (OPS9).

Sponsor's Recommendation for this NCP: Continue as a voluntary measure.

FAA Action for this NCP: **Approved as a voluntary measure. The updated NCP analysis assumes a high rate of measure implementation based on the frequency of past use. This measure is proposed to be accomplished with continued pilot education (OPS9). There will be no mandatory enforcement of a nighttime curfew of operations.**

OPS4 - Voluntary Touch-and-Go Limits

Purpose: To discourage touch-and-go operations Monday-Saturday before 8 a.m. and 2 hours after sunset and 24 hours on Sunday, Thanksgiving, Christmas, and New Year's Day.

Description: This measure assumes continued implementation of the existing voluntary program, which calls for no touch-and-goes at night Monday thru Saturday, and adds the voluntary limitations to touch-and-goes on Sundays, New Year's Day, Thanksgiving Day, and Christmas Day.

2004 FAA Record of Approval: FAA Action: *"Approved as a voluntary measure. The NCP analysis assumes 100% compliance based on current compliance rates. This measure will be accomplished with continued pilot education and will not include mandatory enforcement."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Airport staff monitors aircraft operations that occur when the tower is closed. This measure has been implemented through the Pilot Information Program (OPS9).

Sponsor's Recommendation for this NCP: Continue as a voluntary measure.

FAA Action for this NCP: Approved as a voluntary measure. The updated NCP analysis assumes 100% participation based on past participation rates. This measure will be accomplished with continued pilot education (OPS9) and will not include mandatory enforcement.

OPS5 - Runway 12 Voluntary Noise Abatement Departure Flight Track

Purpose: To encourage use of the straight-out departure track for Instrument Flight Rules (IFR) takeoffs on Runway 12.

Description: This measure called for the development of a standard departure procedure (DP) for use by pilots operating under IFR on Runway 12. The procedure guides pilots electronically along a flight path that is straight out and centered over the St. Lucie Inlet to avoid residential areas prior to turning on course.

2004 FAA Record of Approval: FAA Action: *"Approved as voluntary when a pilot requests to proceed to the ocean before making a turn, when traffic, weather, and airspace safety and efficiency conditions permit ATC to approve the request. This measure assumes and [sic] average of 1% per day will utilize this voluntary measure. While this measure does increase by a small number the residents in the 65-70 DNL contour, it reduces the population included in the 60-65 DNL contour, providing a net decrease in people exposed to noise. Current airspace constraints to the north and south of Martin County significantly curtail the use of this procedure. As airspace allocations are adjusted by Air Traffic, the NCP may be updated to analyze additional compliance with this measure."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: The Departure Profile was published in August 2009 and became effective and available for pilot use December 17, 2009. Voluntary compliance is encouraged through on-airport signage, FBO posters, and publication in pilot information materials, pilot websites, and information in manuals.

Sponsor's Recommendation for this NCP: Continue as a voluntary measure.

FAA Action for this NCP: Approved as voluntary when a pilot requests to proceed to the Atlantic Ocean before making a turn, when traffic, weather, and airspace safety and efficiency conditions permit Air Traffic Control (ATC) to approve the request. This measure assumes an average of 1% of the operations per day will utilize this voluntary measure. While this measure does increase by a small amount the number of residents in the DNL 65-70 dBA contour, it reduces the

population within the DNL 60-65 dBA contour, providing a net decrease in the number of people exposed to significant levels of aircraft-related noise. FAA notes that current airspace constraints to the north and south of Martin County significantly curtail the use of this procedure. However, as airspace allocations are adjusted by local and regional ATC, additional analysis by the Sponsor may enable a higher degree of measure use.

OPS6 - Runway 30 Voluntary Noise Abatement Departure Flight Track

Purpose: To encourage a left turn to 285 degrees for IFR aircraft departing Runway 30.

Description: Like OPS5, this measure contemplated the development of a procedure for use by pilots operating under IFR conditions on Runway 30. The procedure established a departure track at 285 degrees, which avoids more densely populated residential areas.

2004 FAA Record of Approval: FAA Action: *"Approved as voluntary when a pilot requests the turn, when traffic, weather, and airspace safety efficiency conditions permit ATC to approve the request. Current airspace constraints to the north and south of Martin County significantly curtail the use of this procedure. As airspace allocations are adjusted by Air Traffic, the NCP may be updated to analyze additional compliance with this measure."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: The Departure Profile was published in August 2009 and became effective and available for pilot use December 17, 2009. Voluntary compliance is encouraged through on-airport signage, FBO posters, and publication in pilot information materials, pilot websites, and information in manuals.

Sponsor's Recommendation for this NCP: Continue as a voluntary measure.

FAA Action for this NCP: Approved as voluntary when a pilot requests the turn, when traffic, weather, and airspace safety and efficiency conditions permit ATC to approve the request. Current airspace constraints to the north and south of Martin County significantly curtail the use of this procedure. However, as airspace allocations are adjusted by local and regional ATC, additional analysis by the Sponsor may enable a higher percentage of measure use.

OPS7 - Voluntary Takeoff and Landing Procedures

Purpose: Encourages the use of National Business Aviation Association (NBAA) close-in noise abatement departure profile (NADP), Aircraft Owners and Pilots Assoc. (AOPA) and/or manufacturer noise abatement takeoff and landing procedures.

Description: This measure recommends that pilots utilize takeoff and landing procedures for noise abatement purposes.

2004 FAA Record of Approval: FAA Action: *"Disapproved pending submission of additional information to make an informed analysis. This measure relates to flight procedures under 49 U.S.C. 47504(b). Information required to complete FAA action on this measure includes calculating the estimated benefits to noise-sensitive land uses near the airport. This information can be provided using either DNL noise contour or using supplemental metrics such as describing the benefits with versus without the measure, on a single event basis.*

The effectiveness of noise abatement procedures will vary on an airport-by-airport basis. There are three basic profiles – near, distant, and standard. Given variations in aircraft performance, it is possible for one aircraft type to use one type of procedure and another aircraft to use a different procedure to achieve noise reduction over the same community. The techniques used to determine the noise benefits of changes in approach setting are still under study in the U.S."

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Additional data and information demonstrating a benefit within the DNL 65 dBA noise contour was provided to the FAA and subsequently the measure was approved. The data demonstrated that the NBAA Close-In Departure Profile provided a benefit to residents closer-in to the airport, reducing single event takeoff noise levels between 5 and 7 decibels (dB). (updated NCP, pages 26 and 27).

Sponsor's Recommendation for this NCP: Continue as a voluntary measure.

FAA Action for this NCP: Approved as a voluntary measure.

OPS8 - Install Flight Tracking System (NOMS)

Purpose: Record flight tracks and operations to help monitor the effectiveness of voluntary noise compatibility operational measures and to assist Martin County in the determination of the future need to update the noise exposure maps.

Description: Install a flight tracking system to assist airport staff in the collection of aircraft operations data to monitor the effectiveness of NCP operational measures.

2004 FAA Record of Approval: FAA Action: *"Approved. The flight tracking system must technically be able to interface with the FAA equipment and operations, and must comply with FAA data download requirements. Eligibility for Federal funding and the scope of the proposed project will be determined at the time of application."*

For purposes of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes by in-situ measurement of any pre-set noise thresholds and shall not be used for mandatory enforcement of any voluntary measure."

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: FAA approved this measure and the Florida Department of Transportation (FDOT) provided an 80% grant for the procurement of the system. Installation began in 2011 and final acceptance was completed in November 2012. (updated NCP, page 27)

Sponsor's Recommendation for this NCP: This measure has been implemented. Future upgrades are anticipated as technology advances. The effectiveness of this measure through the 2017 planning period will depend upon Martin County's ability to upgrade the existing systems as these advancements come on-line. (updated NCP, page 27).

FAA Action for this NCP: **Approved. Any flight tracking system updates must be able to interface with the FAA equipment and operations, and must comply with FAA data download requirements. Eligibility for Federal funding and the scope of the proposed updates to the system will be determined at the time of application. For purposes of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes by in-situ measurement of any preset noise thresholds and shall not be used for mandatory enforcement of any voluntary operational measure.**

OPS9 - Pilot Information Program

Purpose: Educate and inform pilots about the Airport's noise abatement program procedures.

Description: This measure called for the development of a program designed to inform pilots of noise sensitive areas around the Airport and to encourage pilot participation in the Noise Abatement Program. (updated NCP, page 28).

2004 FAA Record of Approval: FAA Action: *"Approved in Concept. The methods to publicize this noise compatibility program are approved. Prior to release, each publicity measure must be approved for wording and content by the appropriate FAA office, and should clearly state that the noise abatement measures are voluntary, and that pilots,*

while encouraged to request the noise abatement departure heading, are always required to follow the directions provided by air traffic control."

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval:

The ANAC and Airport staff have designed and distributed pilot brochures, posters, signage, and Jeppesen inserts describing the Martin County program. SUA noise abatement materials have been distributed to all based aviation businesses and to all U.S. fractional ownership companies. Information is also posted on the AOPA website and recorded on the Automated Weather Observation System (AWOS). Notification letters are mailed to those who operate during voluntary curfew hours.

Sponsor's Recommendation for this NCP: Continue the Pilot Information Program.

FAA Action for this NCP: Approved. The methods to continue to publicize the Noise Compatibility Program are approved. However, prior to release, each publicity measure must be approved for wording and content by the appropriate FAA office and should clearly state that the noise abatement measures are voluntary and that pilots, while encouraged to request the noise abatement departure heading, are always required to follow the directions provided by ATC.

OPS10 - Monitor Air Traffic Control Frequencies

Purpose: To record and review ATC/pilot radio communications to monitor operations when the Tower is closed.

Description: The intent of this measure is to provide a method by which SUA staff can monitor and track airport operations on Universal Communications (UNICOM) radio transmissions during voluntary curfew hours.

2004 FAA Record of Approval: FAA Action: *"Approved. This measure would involve purchasing over-the-counter radio-receiving equipment that is generally available to the public. The stated purpose is to determine how effective the noise abatement measures are. Information will be used to education the pilots and community about the program, and will be used to assist in addressing citizen complaints. Eligibility for Federal funding and scope of the proposed project will be determined at the time of application. For purposes of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes and shall not be used for mandatory enforcement of any voluntary measure."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval:

This measure was implemented as an added feature to the Noise Operations Monitoring System (OPS8).

Sponsor's Recommendation for this NCP: This measure has been implemented and is not recommended for further implementation.

FAA Action for this NCP: No FAA Action required.

OPS11 - Engine Run-up Procedures and Facilities

Purpose: To provide for set hours (8 a.m. until 6 p.m.) during which engine run-ups can occur and to study a potential new location for the engine run-up pad.

Description: This is the continuation of existing procedures for engine maintenance run-ups. The previous measure limited run-up activities during the night hours (10 p.m. to 7 a.m.). The revised measure extended the hours to discourage run-up activities during the hours of (6 p.m. to 8 a.m.). Run-up's are limited to specific maintenance run-up areas and to sites on the airport where existing structures offer shielding.

2004 FAA Record of Approval: FAA Action: *"Approved to continue the current procedure as a voluntary measure. Approved for further study of additional run-up locations."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: At the February 2005 Noise Abatement Workshop, information was disseminated concerning the revisions to the voluntary maintenance run-up hours. The voluntary maintenance run-up hours are promoted via the Pilot Information.

Sponsor's Recommendation for this NCP: Continue the current procedure as a voluntary measure.

FAA Action for this NCP: Approved as a voluntary measure.

OPS12 - Noise Barriers:

Purpose: To study the benefits of the construction of noise barriers to reduce the impact of aircraft ground noise.

Description: Preliminary locations of noise berms and barriers were discussed following the 2004 FAR Part 150 Noise Study.

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: The ANAC determined that noise barriers would not be effective under current conditions. This measure was not implemented.

2004 FAA Record of Approval: FAA Action: *"Approved for further study."*

Sponsor's Recommendation for this NCP: Not recommended for implementation.

FAA Action for this NCP: No FAA Action required.

LAND USE MEASURES

The Martin County Airport / Witham Field property lies within the jurisdiction of two entities with land use control authority. Martin County, which is the Airport Sponsor, has jurisdiction over land uses within unincorporated Martin County and jurisdiction over land uses within the airport property. The City of Stuart has jurisdiction over land uses within the City limits but has no authority over land uses within the airport. In general, the southeastern portion of the airport is within the land use jurisdiction of Martin County, and the northwest portion of the airport is within the land use jurisdiction of the City of Stuart.

Martin County has adopted the DNL 60 dBA noise contour as its local standard for land use compatibility planning purposes. This is lower than the FAA's standard of DNL 65 dBA. Although it has been proposed over the course of the last few years, the City of Stuart has not adopted a lower local standard for land use compatibility planning purposes. Therefore the FAA's standard land use compatibility guidelines as contained in 14 CFR Part 150, Appendix "A", Table 1, apply to land uses within the jurisdiction of the City.

Any Land Use measure proposed by the Airport Sponsor in the NCP and approved by the FAA in this ROA that specifically pertain to the DNL 60+ dBA noise contour are only applicable to land uses/areas within the jurisdiction of Martin County. They do not apply to land uses/areas within the jurisdiction of the City of Stuart until such time as the City adopts a lower local land use planning standard that the FAA has reviewed and concurs is adequately enforceable by the City. Measures proposed in the NCP and approved by FAA in this ROA that pertain to the DNL 65+ dBA noise contours are applicable to both Martin County and the City of Stuart.

In terms of noncompatible land uses eligible for consideration of land use mitigation measures approved by the FAA in this ROA, the "phases" of mitigation depicted in NCP Figure 5-1 for land uses within the City of Stuart and in Figure 5-2 for land uses within Martin County are misleading because they are outdated and no longer valid. This is because they are based on the previous (2004) NCP and its associated NEM's. The current (2012) NEM and (2013) NCP update supersedes any previously accepted NEM's and NCP measures. As indicated in the current NEMs, the NCP program has successfully reduced noise around the airport. As is always the case, when FAA funds are requested for mitigation purposes, the FAA will determine eligibility based on the level of noise exposure at the time of the Federal funds request. Future implementation must be in accordance with guidance outlined in FAA Program Guidance Letter (PGL) 12-09, Eligibility and Justification Requirements for Noise Insulation Programs.

LU1 - Noise Zoning

Purpose: To establish airport zoning overlays preventing new noncompatible land uses.

Description: This measure promotes land use compatibility through changes to local zoning regulations. The Martin County Board of County Commissioners (BOCC) adopted the 60 dB DNL level as the local standard for land use compatibility planning purposes on September 11, 2012. (updated NCP, page 31 and Appendix "G", and Table 2-1).

2004 FAA Record of Approval: FAA Action: *"Approved in part, disapproved in part. This is a preventative land use measure and is within the authority of the local land use planning jurisdictions.*

*The narrative at pages 5-19 and 5-20 describe the zones as follows. Zone A would prohibit new noise sensitive development within the DNL 65 dB and greater noise contour, including residential development. Nonresidential commercial development would require sound attenuation. Zone B would prohibit new schools, child care, and similar noise sensitive uses. Other nonresidential commercial development would require sound attenuation. **These designations are approved.***

*We note that LU7 suggests an intention to limit new land uses in Zone A and B to compatible uses; however, residences are not specifically mentioned in the description of prohibited land uses in Zone B, and are assumed to be permitted in that zone's [sic] DNL 60-65 dB noise contour. **To the extent that Zone B is intended to permit new residential land uses, this aspect of Zone B is disapproved for purposes of Part 150.** It would not be reasonably consistent with achieving the goal of reducing noncompatible land uses and preventing the introduction of additional noncompatible uses (49 U.S.C. section 47504(b)(1)(B)) to allow new residences within the DNL 60-65 dB noise contour since the local government has adopted the DNL 60-65 dB standard as locally significant. Neither would it be consistent with the FAA's land use mitigation policy published in 1998. Further mitigation of any noise-sensitive development that occurs after October 1, 1998, will not be eligible for Part 150 approval under the FAA's 1998 policy. Disapproval under Part 150 does not prevent the local planning jurisdictions from carrying out their own land use plans to meet local needs."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Martin County adopted the zoning regulations recommended in LU1 of the 2004 NCP on September 11, 2012. (updated NCP, page 31 and Appendix G). As of the submittal of the updated NCP and the preparation of this ROA, the City of Stuart has not adopted similar regulations. A letter from the City of Stuart outlining its actions with regard to an Interlocal Agreement with Martin County is contained in Appendix G of the NCP. The Interlocal Agreement had not been executed by the City and County as of the publication of this ROA.

Sponsor's Recommendation for this NCP: Continue enforcement of the Noise Overlay Zones in areas under the jurisdiction of Martin County through the Martin County Building Department. Enforcement in areas under the jurisdiction of the City of Stuart carried out by the City of Stuart.

FAA Action for this NCP: Approved in part, disapproved in part. This is a preventative land use measure and is within the authority of the local land use planning jurisdictions.

The narrative summarized at page 31 of the updated NCP describes the overlay zones as follows: Zone A would prohibit new noise sensitive development within the DNL 65 dBA and greater noise contour, including residential development. Nonresidential commercial development would require sound attenuation; Zone B would prohibit new schools, child care, and similar noise sensitive uses. Other nonresidential commercial development would require sound attenuation. *This portion of measure LU1 is approved.*

We note that LU1 suggests an intention to limit new land uses in Zones A and B to compatible uses; however, residences are not specifically mentioned in the description of prohibited land uses in Zone B and are assumed to be permitted in that zone's DNL 60-65 dBA noise contour. *To the extent that Zone B is intended to permit new residential land uses, this aspect of measure LU1 concerning Zone B is disapproved for purposes of 14 CFR Part 150.* The Sponsor may not utilize Federal financial assistance for the acquisition of property within Zone B on which the Sponsor intends to construct, or causes to be constructed, new residential development. Moreover, the FAA does not approve of new residential development on property in Zone B previously acquired with Federal financial assistance regardless of the Sponsor's intent at the time the property was acquired. It would not be reasonably consistent with achieving the 14 CFR Part 150 goal of reducing noncompatible land uses and preventing the introduction of additional noncompatible uses (49 U.S.C. section 47504(b)(1)(B)) to allow new residences within the DNL 60-65 dBA noise contour since Martin County has adopted the DNL 60 dBA standard as locally significant. Neither would it be consistent with the FAA's land use mitigation policy published in 1998. Disapproval under 14 CFR Part 150 does not prevent the local planning jurisdictions from carrying out their own land use plans to meet local needs.

We further note that the Zone A and B designations only apply to land areas to the southeast of the airport within the jurisdiction of Martin County, and not those areas to the northwest of the airport within the jurisdiction of the City of Stuart.

LU2 - Real Estate Disclosure

Purpose: To provide a method of disclosure of properties location within the DNL 60 dBA and higher noise contours.

Description: This measure requires the development of a method of disclosure to the general public and property owners of the parcels' locations within the 60 dB DNL and higher noise contours and the possibilities of aircraft noise and overflights.

2004 FAA Record of Approval: FAA Action: "Approved."

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: In 2007 the ANAC voted not to support mandatory disclosure, therefore this measure was not implemented.

Sponsor's Recommendation for this NCP: Not recommended for future action.

FAA Action for this NCP: No FAA action required.

LU3 - Site Plan Review

Purpose: To provide a mechanism for the Sponsor to review and comment on proposed development plans for property within the DNL 60 dBA and higher noise contours.

Description: This measure consists of the use of the Intergovernmental Coordination Element of the Comprehensive Plan to facilitate site plan review if the property is within the Airports DNL 60 dB and higher noise contour intervals.

2004 FAA Record of Approval: FAA Action: "Approved".

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Airport staff reviews development plans in areas around the airport within the noise overlay zones.

Sponsor's Recommendation for this NCP: Continue internal implementation.

FAA Action for this NCP: Approved

LU4 - Citizen's Noise Committee

Purpose: Continue the Citizen's Noise Committee for the purpose of monitoring the effectiveness and implementation of NCP measures and assisting with community education.

Description: This measure established a committee consisting of City and County residents for the purpose of monitoring the effectiveness and implementation of NCP measures.

2004 FAA Record of Approval: FAA Action: "Approved".

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: This measure was implemented by the Martin County BOCC under Resolution 03-8.22 which outlines the makeup and membership of the ANAC. (updated NCP, page 32).

Sponsor's Recommendation for this NCP: Maintain the ANAC for the purposes of monitoring the effectiveness and implementation of NCP measures.

FAA Action for this NCP: Approved

LU5 - Florida Statute 333 Airport Zoning

Purpose: To incorporate provisions consistent with Florida Statute (F.S.), Chapter 333, Airport Zoning.

Description: This measure recognizes existing Florida law that refers to land use compatibility, zoning regulations and requirements, as well as airport hazards as they pertain to development of structures exceeding FAA obstruction standards and to airport safety.

2004 FAA Record of Approval: FAA Action: "Approved".

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: The overlay zones described in LU1 include the provisions of F.S. Chapter 333.

Sponsor's Recommendation for this NCP: Continue enforcement of the Noise Overlay Zones in areas under the jurisdiction of Martin County through the Martin County Building Department. Enforcement in areas under the jurisdiction of the City of Stuart will be carried out by the City of Stuart.

FAA Action for this NCP: Approved. See FAA Action for LU1 regarding Zone B.

LU6 - Voluntary Land Acquisition

Purpose: To acquire on a voluntary basis or provide sales assistance to homeowners within the DNL 60 dB and higher noise contour intervals.

Description: A voluntary acquisition and relocation program for eligible property owners within the DNL 60 dB and higher noise contours. The program is developed in accordance with procedures outlined in the "Uniform Relocation Assistance and Real Property Acquisition Act of 1970".

2004 FAA Record of Approval: FAA Action: *"Approved. The specific identification of structures recommended for inclusion in the program and specific definition of the scope of the program will be required prior to approval for Federal funding.*

The FAA Federal guidelines state that impacts at noise levels of DNL 65 dB and greater are "significant" and lesser noise levels of DNL 55 to 64 dB are "moderately" impacted, (see compatible land use guidelines in Table 1 of Part 150). Properties located at levels less than the Federal "significant" criterion, such as the DNL 60 dB identified as locally significant by the airport sponsor, will receive a much lower priority for Federal financial assistance.

The airport operator has adopted a local deviation from the Federal land use compatibility guidelines published in FAR Part 150, Table 1 (see revised 2004 NCP Chapter 5, Table LU.1). The FAA notes that the adopted guidelines allow construction of non-compatible uses within those noise levels defines as "significant" by the airport operator. The FAA will not approve mitigation of noise-sensitive structures built after October 1, 1998."

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: Phase 1 of the home acquisition program (HAP) is completed. Phase 2 of the HAP is underway. (updated NCP, page 33, Figures 5-1 and 5-2).

Sponsor's Recommendation for this NCP: Continue implementation of the voluntary land acquisition program. Future implementation will be in accordance with guidance outlined in FAA's PGL 12-09, Eligibility and Justification Requirements for Noise Insulation Programs.

FAA Action for this NCP: **Approved.** This measure is approved for areas within the 2017 NEM DNL 60+ dBA noise contour of Martin County since the County has adopted a more stringent local noise criterion than the Federal "significance" guidance contained in 14 CFR Part 150, Appendix "A", Table 1. The specific identification of structures recommended for inclusion in the program and specific definition of the scope of the program will be required prior to approval for Federal funding. Future implementation must be in accordance with guidance outlined in FAA's PGL 12-09, Eligibility and Justification Requirements for Noise Insulation Programs.

The FAA Federal guidelines state that impacts at noise levels of DNL 65 dBA and greater are "significant" and lesser noise levels of DNL 55 to 64 dBA are "moderately" impacted, (see land use compatibility guidelines in 14 CFR Part 150, Appendix "A", Table 1). Properties located at levels less than the Federal "significance" criterion, such as the DNL 60 dBA identified as locally significant by an airport sponsor, will receive a much lower priority for Federal financial assistance.

As discussed above in connection with LU1, the County's adopted guidelines allows construction of noncompatible uses within those noise levels defined as "significant" by the County (Zone B – DNL 60 to 64 dBA noise contours). The Sponsor may not utilize Federal financial assistance for the acquisition of property within Zone B on which the Sponsor intends to construct, or cause to be constructed, new residential development. Moreover, the FAA does not approve of new residential development on property within Martin County's Zone B previously acquired with Federal financial assistance regardless of the Sponsor's intent at the time the property was acquired. The FAA will not approve mitigation of noise-sensitive structures built after October 1, 1998.

FAA notes that this measure is not applicable to land uses in the DNL 60 to 64 dBA noise contours within the jurisdiction of the City of Stuart. No Federal financial assistance will be provided for voluntary land acquisition within the DNL 60 to 64 dBA noise contours within the jurisdiction of the City of Stuart until such time that the City adopts a lower local standard that is more stringent than the noise compatibility guidelines provided in 14 CFR Part 150, Appendix "A", Table 1.

LU7 - Redevelopment Program

Purpose: To encourage compatible redevelopment within the DNL 65-70 and 60-65 dB noise contours.

Description: This measure encourages compatible redevelopment of acquired property within the DNL 65-70 and 60-65 dBA noise contour intervals.

2004 FAA Record of Approval: FAA Action: *"Approved to prepare a redevelopment plan for property acquired as part of this Record of Approval."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: The Noise Land Inventory and Reuse Plan for the Phase 1 project area is complete and was approved by the FAA on June 17, 2010. The Noise Land Inventory and Reuse Plan for the Phase 2 project area is underway. (updated NCP, page 35 and 38).

Sponsor's Recommendation for this NCP: Continue implementation of the Redevelopment Program in qualifying areas within the five-year forecast (2017) DNL 65-70 and 60-65 dB noise contour intervals. The reuse plan will be updated by Martin County to reflect future acquisitions resulting from the updated NEM's and NCP. Future implementation will be in accordance with guidance outlined in PGL 12-09, Eligibility and Justification Requirements for Noise Insulation Programs.

FAA Action for this NCP: Approved. This measure is approved for Martin County to prepare a redevelopment plan for property acquired within the 2017 NEM DNL 60+ dBA noise contour within the land use jurisdiction of Martin County.

FAA notes that this measure is not applicable to noncompatible land uses in the DNL 60 to 64 dBA noise contours within the land use jurisdiction of the City of Stuart. No Federal financial assistance will be provided for a redevelopment plan within the DNL 60 to 64 dBA noise contours within the jurisdiction of the City of Stuart until such time that the City adopts a lower local standard that is more stringent than the noise compatibility guidelines provided in 14 CFR Part 150, Appendix "A", Table 1.

LU8 - Voluntary Sound Insulation Program

Purpose: To provide residential sound insulation treatment to qualifying homes located within the five-year forecast (2017) DNL 65-70 dB and 60-65 dB noise contour intervals.

Description: This measure consists of the application of acoustical treatment standards through renovation of existing structures, i.e. noise level reduction (NLR) 30 dB within the five-year forecast 65 to 70 dB DNL contour and NLR 25 dB within the five-year forecast 60 to 65 dB DNL noise contour. The program is voluntary and subject to funding availability.

2004 FAA Record of Approval: FAA Action: *"Approved. The specific identification of structures recommended for inclusion in the program and specific definition of the scope of the program will be required prior to approval for Federal funding.*

The FAA Federal guidelines state that impacts at noise levels of DNL 65 dB and greater are "significant" and lesser noise levels of DNL 55 to 64 dB are "moderately" impacted, (see compatible land use guidelines in Table 1 of Part 150). Properties located at levels less than the Federal "significant" criterion, such as the DNL 60 dB identified as locally significant by the airport sponsor, will receive a much lower priority for Federal financial assistance.

The airport operator has adopted a local deviation from the Federal land use compatibility guidelines published in FAR Part 150, Table 1 (see revised 2004 NCP Chapter 5, Table LU.1). The FAA notes that the adopted guidelines allow construction of non-compatible uses within those noise levels defined as "significant" by the airport operator. The FAA will not approve mitigation of noise-sensitive structures built after October 1, 1998."

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: This measure has been implemented and is currently ongoing. (updated NCP, page 35, 38, Figure 5-1, Figure 5-2, and Appendix I)

Sponsor's Recommendation for this NCP: Continue implementation of the Voluntary Sound Insulation Program for qualifying properties within the 2017 contour DNL 65-70 and 60-65 dBA noise contour intervals. Future implementation will be in accordance

with guidance outlined in FAA's PGL 12-09, Eligibility and Justification Requirements for Noise Insulation Programs.

FAA Action for this NCP: Approved. This measure is approved for noncompatible land uses within the 2017 NEM DNL 60+ dBA noise contours within the jurisdiction of Martin County. The specific identification of structures recommended for inclusion in the voluntary sound insulation program and specific definition of the scope of the program will be required prior to approval for Federal funding. Future implementation of this measure must be in accordance with the guidance outlined in FAA's PGL 12-09, Eligibility and Justification Requirements for Noise Insulation Programs.

The FAA Federal guidelines state that impacts at noise levels of DNL 65 dBA and greater are "significant" and lesser noise levels of DNL 55 to 64 dBA are "moderately" impacted, (see compatible land use guidelines in 14 CFR Part 150, Appendix "A", Table 1). Properties located at levels less than the Federal "significance" criterion, such as the DNL 60 dBA noise contour identified as locally significant by the airport sponsor will receive a much lower priority for Federal financial assistance.

The Sponsor has adopted a local deviation from the Federal land use compatibility guidelines published in 14 CFR Part 150, Appendix "A", Table 1 (see updated NCP, page 13, Table 2-1). The FAA notes that the adopted guidelines allows construction of noncompatible land uses within those noise levels defined as "significant" by the airport operator (Zone B). The FAA will not approve mitigation of noise-sensitive structures built after October 1, 1998.

FAA notes that this measure is not applicable to land uses in the DNL 60 to 64 dBA noise contours within the jurisdiction of the City of Stuart. No Federal financial assistance will be provided for a voluntary sound insulation program within the DNL 60 to 64 dBA noise contours within the jurisdiction of the City of Stuart until such time that the City adopts a lower local standard that is more stringent than the noise compatibility guidelines provided in 14 CFR Part 150, Appendix "A", Table 1.

LU9 - Voluntary Avigation Easement Acquisition Program

Purpose: To purchase avigation easements over residential properties within the 2017 DNL 65-70 and 60-65 dBA noise contours.

Description: Avigation Easements are obtained for homes participating in the Voluntary Sound Insulation Program and they may be purchased from property owners who are eligible for, but choose not to participate in, a future voluntary home acquisition or sound insulation program. Easements are also obtained for properties that have been acquired, sound insulated, and re-sold.

2004 FAA Record of Approval: FAA Action: *"Approved. The specific identification of structures recommended for inclusion in the program and specific definition of the scope of the program will be required prior to approval for Federal funding."*

Implementation Actions by the Airport Sponsor Since 2004 Record of Approval: This measure has been implemented as part of the ongoing Voluntary Sound Insulation Program.

Sponsor's Recommendation for this NCP: Continue implementation for qualified property owners who are eligible for, but choose not to participate in, a future voluntary home acquisition or sound insulation program. Continue to obtain easements for properties that have been acquired, sound insulated, and re-sold.

FAA Action for this NCP: *Approved. This measure is approved for eligible land uses within the 2017 NEM DNL 60+ dBA noise contours in Martin County. The specific identification of structures in Martin County within the 2017 NEM DNL 60+ dBA noise contours recommended for inclusion in the program and specific definition of the scope of the program will be required prior to approval for Federal funding.*

FAA notes that this measure is not applicable to land uses in the DNL 60 to 64 dBA noise contours within the jurisdiction of the City of Stuart. No Federal financial assistance will be provided for a voluntary aviation easement program within the DNL 60 to 64 dBA noise contours within the jurisdiction of the City of Stuart until such time that the City adopts a lower local standard that is more stringent than the noise compatibility guidelines provided in 14 CFR Part 150, Appendix "A", Table 1.