



City of Manassas, Virginia  
Manassas Regional Airport Commission Meeting

AGENDA

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Manassas Regional Airport Commission Meeting  
Terminal Building - 1st Floor Conference Room  
10600 Harry Parrish Boulevard  
Manassas, VA 20110  
Thursday, April 21, 2022

Call to Order and Roll Call - 7:00 p.m.

Pledge of Allegiance

1. Approval of Minutes

- 1.1 Approval of Meeting Minutes for March 17, 2022  
[Manassas Regional Airport Commission - March 17 Minutes.docx](#)

2. Review of Expenses

- 2.1 Review of Expenses  
[Bill Sheet FY 2022 April.pdf](#)

3. Comments from the Public

*The "Comments from the Public" agenda item is for members of the public to address the Airport Commission for less than three (3) minutes each. Please state your full name, your city/county and state of domicile, and your interest in, and/or affiliation with, the Airport prior to speaking. No prior notice is necessary to speak during this portion of the agenda. Members of the public may also address the Airport Commission for longer than three (3) minutes if they ask the Airport Director for a place on the agenda at least five (5) working days before the meeting or if a member of the public is specifically requested by a Commission Member to address the Commission.*

4. Airport Director's Report

- 4.1 Airport Director's Report**  
[Airport Director's Report - April 2022.docx](#)
- 4.2 Tie-Down and Hangar Occupancy Reports, and Citizen's Monthly Noise Concerns**  
[March 2022 Hangar Occupancy.pdf](#)  
[March 2022 Tie-Down Occupancy.pdf](#)  
[March 2022 Noise.pdf](#)
- 4.3 Aging, Revenue, and Expenditure Reports**  
[REVENUE REPORT.xlsx](#)  
[AGING REPORT.xlsx](#)  
[EXPENDITURES REPORT.xlsx](#)

**5. Presentations**

- 5.1 Quarterly Fuel and Aircraft Operations Report (Mrs. Jolene Berry, 10 minutes)**  
[FuelOperations - Fiscal - April 2022 Update.pdf](#)  
[Agenda Statement - April 21 - Quarterly Fuel Flowage.docx](#)
- 5.2 Quarterly Airport Maintenance Report (Mr. Doug McCauley, 10 minutes)**  
[Agenda Statement - April 21 - Quarterly Maintenance Update.docx](#)

**6. Old Business**

- 6.1 Review and Approve project(s) for the use of BIL funding (Mr. Juan Rivera, 10 minutes)**  
[Agenda Statement - April 21 - Discuss List of potential projects for BIL funds.docx](#)  
[BIL Potential Projects for Consideration JER 3.16.22.pptx](#)  
[Observation Road Relocation and Drainage Improvements.xlsx](#)
- 6.2 Approved the updated Airport Wildlife Plan (Mrs. Jolene Berry, 10 minutes)**  
[HEF - Wildlife Hazard Plan \(Track Changes\).pdf](#)  
[Agenda Statement - April 21 -Wildlife Hazard Management Plan.docx](#)

**7. Consent Agenda**

**8. Committee Reports (If Available)**

- 8.1 Airport Operations Committee Report (Mr. John Snider, Chair, 5 minutes)**

**9.        New Business**

**10.      Information Items**

**11.      Commission Comments**

**11.1    Council Representative Comments**

**Adjournment**



City of Manassas, Virginia  
Manassas Regional Airport Commission Meeting

MINUTES

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Manassas Regional Airport Commission Meeting  
Terminal Building - 1st Floor Conference Room  
10600 Harry Parrish Boulevard  
Manassas, VA 20110  
Thursday, March 17, 2022

The Manassas Regional Airport Commission held its regular meeting in the Airport Conference Room on the above date, attended by Chairman Tom Lemmon, Richard Seraydarian, Anthony McGhee, James L. Uzzle, Larry Pigeon, John Snider, Howard Goodie, Ross Snare, Vanslyn Augustus, and Theresa Coates Ellis.

Juan Cabrera was not present.

Airport Personnel in Attendance: Juan E. Rivera (Airport Director), Patty Bibber (Admin Fiscal Coordinator) and Jolene Berry (Airport Operations).

Chairman Lemmon called the meeting to order at 7:07 p.m.

Pledge of Allegiance

Vice Chairman Seraydarian moved to give permission for Member Snider to participate in the Commission meeting via Zoom. SECONDED by Member Goodie and CARRIED UNANIMOUSLY.

1.

1.1 Approval of Meeting Minutes for February 17, 2022

Member Snider stated to change item 6.1 where it mentions "Member Snider moved to approve the Airport Commission's Bylaws", to strikeout Bylaws and replace with Strategic Plan.

Vice Chairman Seraydarian MOVED to approve the amended minutes of the regular Airport Commission meeting held on February 17, 2022. SECONDED by Member Goodie and CARRIED UNANIMOUSLY.

2. Review of Expenses

### 3. Comments from the Public

The "Comments from the Public" agenda item is for members of the public to address the Airport Commission for less than three (3) minutes each. Please state your full name, your city/county and state of domicile, and your interest in, and/or affiliation with, the Airport prior to speaking. No prior notice is necessary to speak during this portion of the agenda. Members of the public may also address the Airport Commission for longer than three (3) minutes if they ask the Airport Director for a place on the agenda at least five (5) working days before the meeting or if a member of the public is specifically requested by a Commission Member to address the Commission.

Dan Radtke from Manassas, VA gave a briefing on the Runway Run being held on April 24 at Manassas Regional Airport

### 4. Airport Director's Report

#### 4.1 Airport Director's Report

Mr. Rivera briefed the Commission on a claim from Chemung Construction wanting an additional \$31,912.50. Chemung was informed that based on the supporting documentation that the additional claim was not justified. Mr. Rivera stated that the Airport was also hitting them with 9 days of delays, which totals \$27,000. RS&H, the airport engineers are going through the claim. The Airport could later be in mediation.

Mr. Rivera gave an update on the Rising Phoenix hangars. A letter has been composed and sent to the City Attorney and will be sent to the heirs informing them that the lease agreement has been terminated due to non-payment and a lien has been put on the aircraft.

Mr. Rivera met with George Mason regarding the Artwork on the elevator wall. He stated that he will have samples available at the next meeting. The project cost is looking like \$46,000. Staff will see if there are others who can do it as well.

Mr. Rivera had a budget meeting with the City Council. He talked about the Airport budget and it was well received.

Mr. Rivera stated that he spoke with S2R Architects regarding an addition to the Airport to have an event area and what the costs will be.

Mr. Rivera indicated that there will be an internship this year. He indicated that staff will be looking at resumes and sending out packets to various universities.

#### 4.3 Aging, Revenue, and Expenditure Reports.

Mr. Rivera noted that the Aging report consists mostly of the monies owed from Rising Phoenix leaving, 7 others are in non-payment status. Revenues are about facing our expenditures; the Airport is ahead year to date.

#### 5. Presentations

5.1 Discuss list of potential projects for BIL funding (Mr. Juan Rivera, 10 Minutes).

5.2 Update on efforts to get a new ATCT (Mr. Juan Rivera, 10 Minutes).

#### 6. Old Business

#### 7. Consent Agenda

#### 8. Committee Reports (If Available)

8.1 Airport Operations Committee Report (Mr. John Snider, 5 minutes)

Member Snider mentioned the committee continues to work through the security contract and hopes to have final results or comments in the Summer.

Member Snider also noted that the committee reviewed the wildlife plan.

#### 9. New Business

9.1 Review and Approve an Assignment of Franchise for Buchanan Properties. (Mr. Juan Rivera, 10 minutes)

Vice Chairman Seraydarian MOVED to recommend approval of the Franchise for Buchanan Properties to City Council for their approval SECONDED by Member Goodie and CARRIED UNANIMOUSLY

9.2 Review the updated Airport Wildlife Plan (Mrs. Jolene Berry, 10 minutes)

Mrs. Berry stated that there will be a presentation next meeting.

9.3

Review and Approve a draft Airport Commission policy on Commercial Operations in hangars designated for commercial use, but without landside access. (Mr. Juan Rivera, 10 minutes)

Member Goodie MOVED to approve the Airport Commission's policy on Commercial Operations in hangars without landside access. SECONDED by Vice Chairman Seraydarian XXXX and CARRIED UNANIMOUSLY.

10. Information Items

11. Commission Comments

11.1 Council Representative Comments

Member Goodie MOVED to adjourn the meeting. SECONDED by Vice Chairman Seraydarian and CARRIED UNANIMOUSLY.

Meeting adjourned at 8:35PM.

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Secretary

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Chairman

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Date

Vendor	Description	Net Amount
UNITED SECURITY FORCES LLC	AIRPORT SECURITY PATROL	27,497.50
AMERICAN DISPOSAL SERVICES	Trash disposal charges	1,384.44
VERIZON	Phone	87.25
SHECKLER CONTRACTING INC	Work on Catwalk	64,468.93
MOOR GREEN ESTATES HOMEOWNERS	Moor Green HOA Fees	3,860.00
COMCAST COMMUNICATIONS	Comcast	1,093.56
DUVALL'S PLUMBING/HEATING INC	Backflow Test	500.00
PAIGE E KRONER	Mileage Reimbursement	298.70
DELTA AIRPORT CONSULTANTS INC	Reconstruct Taxiway B and Taxilane Y	195,646.14
PR WM CNTY	11380 Alessi Drive (County)	152.34
P-CARD ONE TIME PAY	Various purchases	30,943.84
UPS STORE #5549, THE	Returned Ink Cartridges to Company	109.89
VA OUTDOOR POWER EQUIPMENT CO	Mower Mounted Trimmer	13,128.44
SOUTHERN REFRIGERATION CORPORATION	Coil Cleaner for HVAC	41.50
FASTENAL CO	Parts for Bush hog	52.06
G & V TREE SERVICE INC	Landscaping - Obstruction reduction	4,700.00
B&H FOTO & ELECTRONICS CORP	ETHERNET SURGE PROTECTORS CCTV	2,106.31
TARGET CORPORATION	OFFICE SUPPLIES	1,024.24
RIDGEVIEW NEW HOLLAND INC	FO WEATHERS, GLASS AND MS GENIE	1,808.47
AMAZON.COM, INC	LED FLASH MOD LIGHTBAR AP-5	38.97
HOME DEPOT	MISC OFFICE SUPPLIES-TERMINAL	248.75
COLLIFLOWER, INC	HYDRAULIC HOSE	1,257.83
SKID STEER DOORS	Skid Steer Parts	1,414.84
MCMICHAEL'S SERVICE CENTER INC	BUSHHOG PARTS	31,104.28
VIRTOWER LLC	VirTower 24/7 monitoring airport software	4,500.00
AM ASSOC OF AIRPORT EXEC AAAE	Membership dues	1,804.00
ROXEN INCORPORATED	Business Cards Kroner/Bibber	60.00
CHANTILLY TURF EQUIPMENT	Concrete Saw & Cart	1,422.84
RICKY THOMAS HAINES JR	Terminal Window Tinting	600.00
DOMINION ELECTRIC SUPPLY CO, INC.	Parts for EV3	15.65
BOBCAT OF VA	Skid Steer Parts	740.45
CONDORTECH SVCS INC	Extra replacement cameras	1,050.00
NO VA SUPPLY INC	oil dry, rubber gloves	500.70
GRAINGER	HVAC Filters	641.57
AMERICAN DISPOSAL SVCS, INC	Trash disposal charges	2,307.40
PARAMOUNT MECHANICAL CORPORATION	Terminal Boiler Replacement	55,942.00
ATLANTIC SWEEPING & CLEANING INC	Monthly Runway Sweeping	2,850.00
ROBERTS OXYGEN CO INC	Gas for welder	64.90
AMERICAN DISPOSAL COMMERCIAL SVCS, INC	Trash disposal charges	461.48
TREAS OF VA TECH	Virginia Tech Pesticide Training Manuals	70.00
FERGUSON ENTERPRISES INC 001	Parts for chemical tank	43.86
CARPET ROYALE & RUGS INC	Carpet Runner Terminal	150.00
J E RICE CO	Keys for new sliding doors	7.05
EAST TO WEST EMBROIDERY & DESIGN	Shirt/Embroidery	411.95
PR WM PLUMBING LLC	Plumbers at MAM	362.00
SOUTHERN STATES INC	Ice Melt	1,700.50



Vendor	Description	Net Amount
TERMINIX PROCESSING CENTER	TERMITE WARRANTY	361.00
VA AIRPORT OPERATORS COUNCIL	Associate Membership Dues (Jolene Berry)	175.00
ACV ENVIRONMENTAL SERVICES INC	Hazmat Disposal/Waste Water	8,339.88
THE ADT SECURITY CORPORATION	Airport Panic and Alarm Monitoring	283.51
TRUGREEN CHEMLAWN	Lawn Service	769.82
MULLEN'S MARKINGS, INC.	Striping of new pavement	5,758.50
BLUE RIDGE FIRE PROTECTION INC.	Annual Fire Extinguishers	1,124.00
UNITED RENTALS NORTH AMERICA INC	Replacement for control box & POWER UN	1,279.30
SOUTHEAST CHAPTER / AAAE	Membership Dues	35.00
JOINER LAB LLC	outfall sampling diesel & gasoline	2,960.00
REYNOLDS SMITH & HILLS INC	16R-34L Rehabilitation Construction	36,422.75
REYNOLDS SMITH & HILLS INC	LOMr Taxiway G-Taxilane Y	2,688.30
REYNOLDS SMITH & HILLS INC	Taxiway A Rehabilitation Design	25,918.42
REYNOLDS SMITH & HILLS INC	Observation Road Relocation and Drainage	96,674.38
REYNOLDS SMITH & HILLS INC	Master Plan Update	164,427.40
ROLLINS INC	Service at Terminal	131.97
ORKIN EXTERMINATING CO INC	Pest Control	2,119.76
U S PLANTS INC	Monthly Plant Maintenance	7,820.00
INTEGRITY PROPERTY MANAGEMENT GROUP LLC	Snow removal 1-4-22, 1-6-22, 1-7-22	5,826.73
WALKERS CRPT CRE/JANTRL SVC	Monthly Janitorial Services	274.00
GENUINE PARTS COMPANY	Transmission fluid for the airport fire truck	4,120.00
VA BUSINESS SYSTEMS	Copier Lease	37,100.00
SONNY INC	Security Services Rendered: July 1 - 31 202	4,106.27
WASHINGTON GAS	Gas services	175.67
NATIONAL AIR TRANSPORTATION ASSOCIATION	Annual Membership	1,640.00
BENFIELD ELEC CO OF VIRGINIA INC	Time clock installation	150.00
USI INSURANCE SERVICES LLC	Airport Liability Insurance	544.00
CINTAS CORP. #145	Uniforms/Mats/Misc Supplies	3,830.00
VULCAN MATERIALS COMPANY	gravel for relocated card reader	264.02
A R C WATER TREATMENT	Water Treatment	64,937.45
ROAD RUNNER WRECKER SVC INC	Relocate Red Dodge Ram & White Chevy V	7,683.16
TRAFFIC SAFETY SUPPLIES LLC	Concrete Wheel Stops	4,551.33
SHERYL A MARTIN	Promotional Products	75,963.06
CINTAS FIRST AID & SAFETY	Medical Cabinet Supplies	111,406.16
MANASSAS, CITY OF UTILITIES	Electric/Water/Sewer	273.80
CONSTELLATION ENERGY CORPORATION	Gas	3,562.65
FINLAY FIRE APPA & EQUIP REPAIR LLC	Foam unit annual service.	1,617.47
CHEMUNG CONTRACTING CORPORATION	RUNWAY 16R/34L REHABILITATION & TAXI	12,363.00
JULIUS BRANSCOME INC	T-Hangar Taxilane Paving	300.00
WEISCO INC	Name Plates	13,882.46
CRAIG GOSSMAN	Manassas Regional Airport Strategic Plan U	395.00
ADB SAFEGATE AMERICAS HOLDING INC	PAPI Parts 16L	6,070.79
STANLEY ACCESS TECHNOLOGIES LLC	Terminal Rear Slide Doors	20.00
MISTRAS GROUP INC	PUMP TEST	20.00
G4S TECHNOLOGY HOLDINGS USA INC	Card reader near Gate WV-03.	339.90
NATIONAL BUSINESS AVIATION ASSOCIATION	NBAA Membership Dues	1,577.75

Vendor	Description	Net Amount
SECURADYNE SYSTEMS INTERMEDIATE LLC	Camera Repair/Replace	7,160.66
FAA	Lien Fees	20.00
STATE CORP COMMISION	Lien Fees	20.00
NAT'L ELEVATOR INSP SVC INC	Tower Elevator Inspection	339.90
ORACLE ELEVATOR HOLDCO INC	Standard Elevator Inspection	1,577.75
BOLAND TRANE SERVICES INC.	HVAC	7,160.66



## Airport Director's Office Juan E. Rivera

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### Memorandum

April 12, 2022

TO: Manassas Regional Airport Commission

FROM: Juan E. Rivera, Airport Director

RE: **AIRPORT DIRECTOR'S REPORT FOR APRIL 2022**

#### CITY COUNCIL ACTIONS IN REGARDS TO THE AIRPORT

- a. On March 28, 2022, the City Council approved #R-2022-40 Approving the Consent and Estoppel Agreement between the City and Burleith TH, LLC.
- b. The review of the updated Airport Bylaws sent to City Council has been scheduled for the Committee of the Whole on May 16, 2022.

#### HANGAR OCCUPANCY RATE

West T-Hangars: 57 out of 59 Rented

97% Rented - **No change.**

East T-Hangars: 96 out of 97 Rented

99% Rented – **2 new tenants**

**East and West Hangars – 153 out of 156 – 98% Rented**

Waiting List Status – Emails will be sent out next week for available hangars.

#### *Breakdown*

Total on List – 105

East Side – 92

West Side – 68

60x50 – 14

#### TIE-DOWN OCCUPANCY RATE

West Tie-Down: 45 out of 85 Rented

53% Rented – **1 tenant vacated.**

East Tie-Down: 84 out of 86 Rented

98% Rented – **6 new tenants. 1 tenant vacated.**

**East and West Tie-Down – 129 out of 171 Rented – 75% Rented**

Squatters: NONE

### NOISE COMPLAINTS

There was one (1) noise complaint recorded by Airport Operations in the month of March 2022.

#### 1 – Helicopter Departure

A noise complaint form is available on the Airport's website for citizens who have noise concerns. The form can be completed and submitted online, or a citizen can call the Noise Hotline 24/7 at (703) 257-2576. Staff is continuing to exercise contacts with operators in an effort to educate on Noise Program. A good percentage of the recent complaints are from operators outside of our based tenants, particularly military.

### MASTER PLAN UPDATE

The Airport Staff's next bi-monthly meeting with the staff of RS&H, FAA and the Airport Staff is scheduled for Wednesday, April 20, 2022. RS&H has updated the Aviation Activity Forecast to incorporate TAF Data published in March by the FAA. The critical aircraft has been identified in accordance with AC 150/5200-17 (Critical Aircraft and Regular Use Determination) by grouping most demanding aircraft with similar characteristics together instead of identifying a single aircraft type with regular use.

### OBSERVATION ROAD RELOCATION AND DRAINAGE IMPROVEMENTS

The Airport Director recently learned that the FAA would participate in this project under the AIG program. This means that the FAA will provide 90% funding for this project for the items that are eligible. The VDOA has indicated that the August 2022 meeting of the VAB will most likely be the best opportunity to received state funding. The City staff is reviewing the final documents and final approvals are coming in and ongoing. The FAA Form 7460-1 and CSPP have been reviewed by the FAA and are complete. This project will be scheduled to start in the spring of 2023 to take advantage of the Federal and State funding availability.

### TAXIWAY B REHABILITATION

Delta has completed the 30% report in house. The Airport received a copy of the Schematic Engineering Report. Once the Airport staff has a chance to review the report, a meeting of the FAA and State will be schedule. Three things stand out in the report. The first thing that stands out is the cost. The Engineers' estimate is \$8.5 million. The 2<sup>nd</sup> item would be the recommendation of widening the taxiway by adding five feet to each side, and finally, the cost of having shoulder on the taxiway is cost prohibitive. The current budget for this project is \$4.8 million. This project will have to been value engineered to find cost saving. The Taxiway Y portion of this project may have to be deleted from this project and done separately at a different time.

### RUNWAY 16R/34L REHABILITATION AND LIGHTING UPGRADES

The project has been completed and is awaiting close-out. The contractor, Chemung Contracting Corporation has submitted a claim with a request to drop liquidated damages. The Airport contends that the contractor did not complete the project on time and went over the contract time by nine (9) days.

April 12, 2022  
Airport Director's Report for March  
Page Three

The liquidated damages are \$3,000 a day for a total of \$27,000.00. The contractor is seeking \$31,912.50 for additional work. Chemung Contracting has submitted a letter to the City requesting that this issue be handled through Arbitration. The City Attorney will respond to their request as appropriate.

#### TAXIWAY A DESIGN EFFORT

RS&H has finalized the design and the City has completed their review and the Site Plan is approved. RS&H is working with Jerry Burke on front end of the specification and project manual. An Independent Fee Estimate (IFE) for the CA/RFR scope of work has been completed and approved by the FAA. The FAA has requested that the Airport submit a grant for the funding of this project at the end of June. This project will start in the Fall of this year if the funding is in place. The concern the Airport Director has for this project is if the bids come in higher than the budget.

#### UPCOMING EVENTS

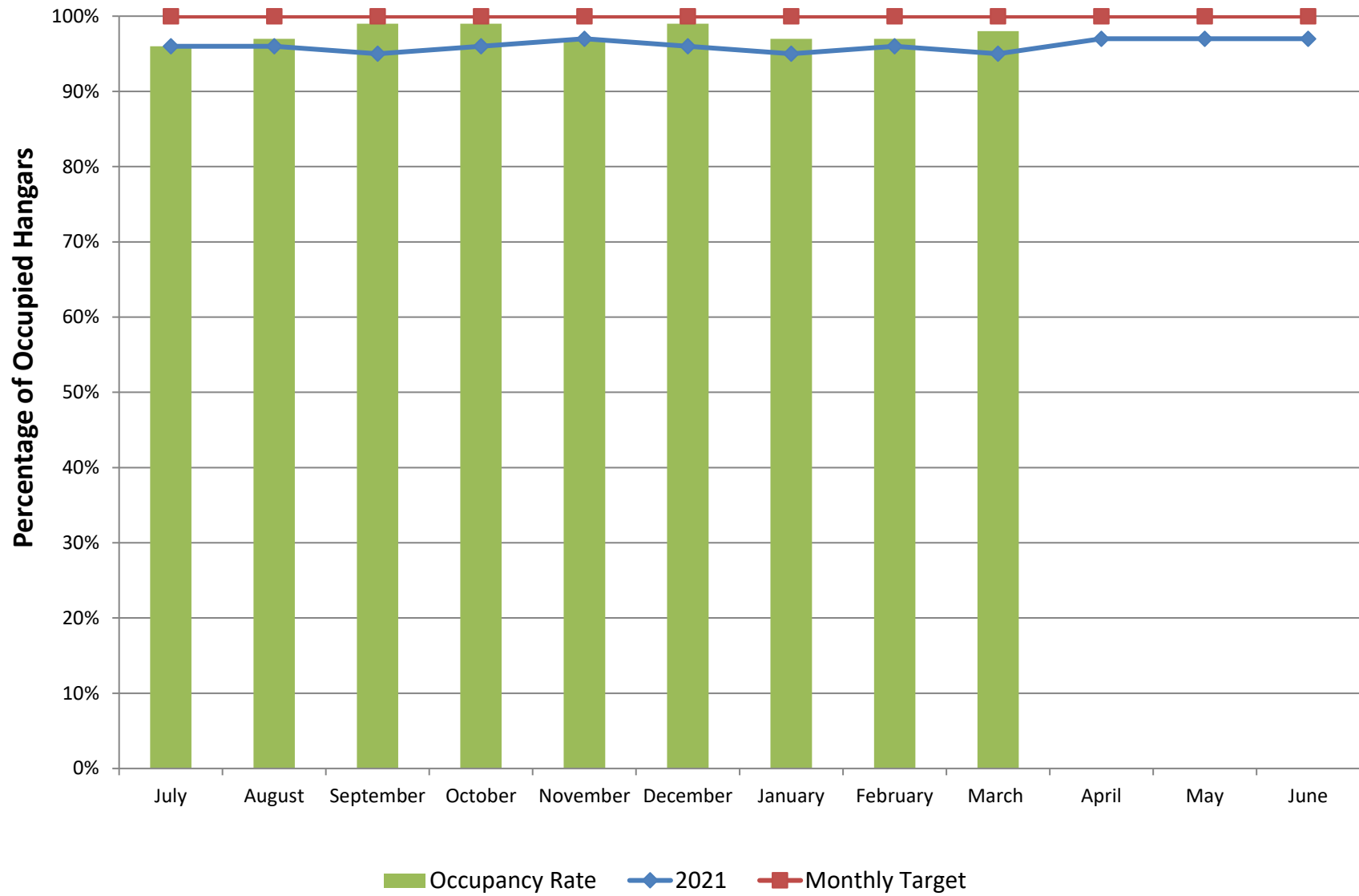
- a. Airport Run – April 24, 2022

#### Juan E. Rivera

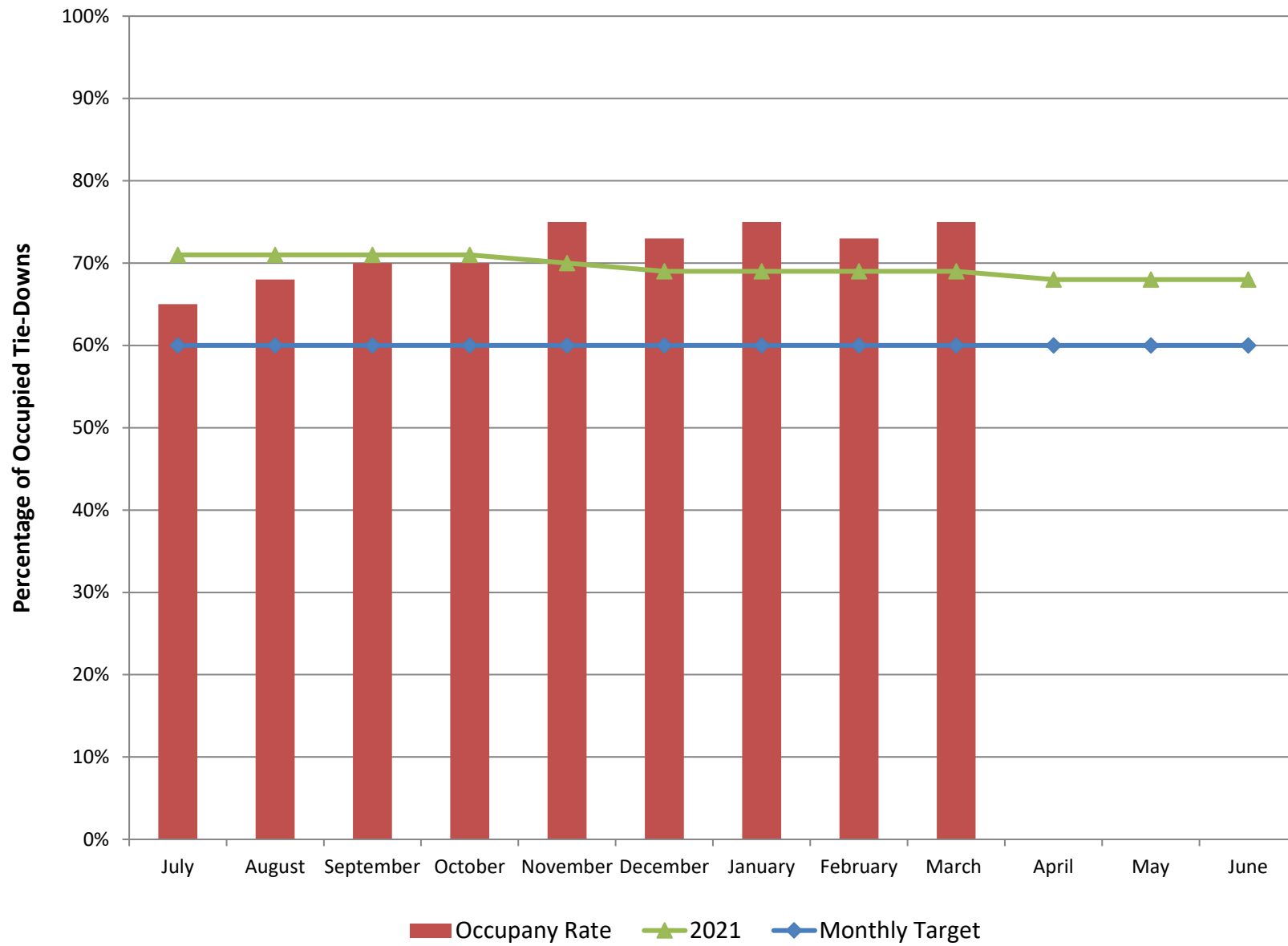
Juan E. Rivera, Director  
Manassas Regional Airport

Attachments: Noise Complaints & YTD Tie-Down and Hangar Occupancy Rates  
Master Plan Updated Schedule

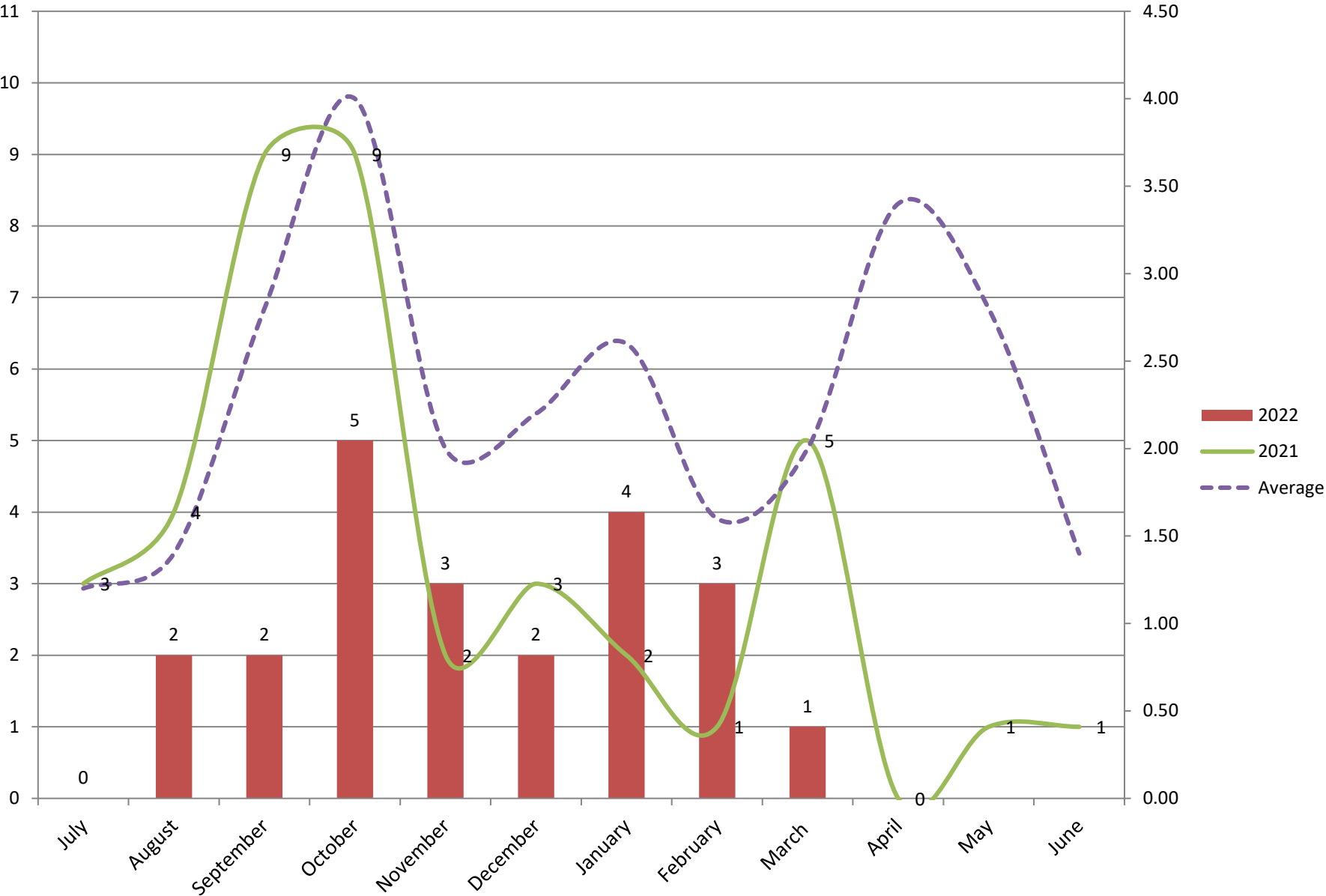
## FY2022 Hangar Occupancy Rates



## FY2022 Tie-Down Occupancy Rates



Noise Complaints FY 2021-2022





REVENUE									
ORG	OBJ	ACCOUNT DESCRIPTION	ORIGINAL APPROP	TRANFRS/ADJSMTS	REVISED BUDGET	YTD RECEIVED	ENCUMBRANCES	AVAILABLE BUDGET	% USED
57097400	315001	Interest on Pooled Cash	0	0	0	-2,714.85	0.00	2,715	100.00
57097400	315200	Leases and Rents	-2,179,340	0	-2,179,340	-1,795,696.54	0.00	-383,643	82.40
57097400	315204	Hangar Rentals	-958,790	0	-958,790	-782,135.35	0.00	-176,655	81.60
57097400		Total 57097400 Use of Money & Prope	-3,138,130	0	-3,138,130	-2,580,546.74	0.00	-557,583	82.20
57097600	317510	Airport Tie-Down Fees	-70,000	0	-70,000	-107,628.77	0.00	37,629	153.80
57097600	317520	Airport Fuel Flowage Fees	-208,390	0	-208,390	-208,607.43	0.00	217	100.10
57097600	317530	Airport Security Surcharge	-52,000	0	-52,000	-50,525.44	0.00	-1,475	97.20
57097600	317535	Airport Car Rental Revenue	-16,000	0	-16,000	-2,529.28	0.00	-13,471	15.80
57097600		Total 57097600 Sales & Connections	-346,390	0	-346,390	-369,290.92	0.00	22,901	106.60
57097700	318000	Miscellaneous Revenues	-2,500	0	-2,500	-2,493.21	0.00	-7	99.70
57097700	318426	Card Replacement Fees	-200	0	-200	-175.00	0.00	-25	87.50
57097700	318650	Airport Commercial Op Permit	-6,600	0	-6,600	-5,965.00	0.00	-635	90.40
57097700	318710	Cash Over/Short-Airport	0	0	0	-2.75	0.00	3	100.00
57097700		Total 57097700 Other Local Rev-Gene	-9,300	0	-9,300	-8,635.96	0.00	-664	92.90
57097900	322071	VA State Reimbursements	-35,000	0	-35,000	0.00	0.00	-35,000	0.00
57097900		Total 57097900 State Non-Categorica	-35,000	0	-35,000	0.00	0.00	-35,000	0.00
57098200	332010	FAA Tower Rent from Fed Govt	-15,580	0	-15,580	-12,980.00	0.00	-2,600	83.30
57098200	332011	FAA Tower Reimbursements	-25,700	0	-25,700	-32,422.53	0.00	6,723	126.20
57098200		Total 57098200 Federal Non-Categori	-41,280	0	-41,280	-45,402.53	0.00	4,123	110.00
57098400	333010	CARES Act/COVID-19 Funding	0	-148,000	-148,000	0.00	0.00	-148,000	0.00
57098400		Total 57098400 Federal Categorical	0	-148,000	-148,000	0.00	0.00	-148,000	0.00
57099100	346400	Contr Surplus-Net Position	-1,400,000	0	-1,400,000	0.00	0.00	-1,400,000	0.00
57099100	346500	Contr Surplus-Encumbrances	0	-35,017	-35,017	0.00	0.00	-35,017	0.00
57099100		Total 57099100 OFS-Contribution fro	-1,400,000	-35,017	-1,435,017	0.00	0.00	-1,435,017	0.00
		Grand Total	-4,970,100	-183,017	-5,153,117	-3,003,876.15	0.00	-2,149,241	58.30

AGING REPORT							
Customer Id	Customer Name	Bill Due Date	Unpaid Balance	61 to 90 Days Past	91 to 120 Days Past	Over 120 Days Past	Total Due Now
11204	VIRGINIA RAILWAY EXPRESS	10/31/2021	\$1,812.70	\$0.00	\$0.00	\$1,812.70	\$1,812.70
11204	VIRGINIA RAILWAY EXPRESS	12/01/2021	\$1,812.70	\$0.00	\$0.00	\$1,812.70	\$1,812.70
11204	VIRGINIA RAILWAY EXPRESS	12/31/2021	\$1,812.70	\$0.00	\$1,812.70	\$0.00	\$1,812.70
11204	VIRGINIA RAILWAY EXPRESS	01/31/2022	\$1,812.70	\$1,812.70	\$0.00	\$0.00	\$1,812.70
11204	VIRGINIA RAILWAY EXPRESS	03/03/2022	\$1,812.70	\$0.00	\$0.00	\$0.00	\$1,812.70
36079	RISING PHOENIX AVIATION, INC.	08/31/2021	\$1,681.75	\$0.00	\$0.00	\$1,681.75	\$1,681.75
36079	RISING PHOENIX AVIATION, INC.	10/01/2021	\$1,681.75	\$0.00	\$0.00	\$1,681.75	\$1,681.75
36079	RISING PHOENIX AVIATION, INC.	08/31/2021	\$400.00	\$0.00	\$0.00	\$400.00	\$400.00
36079	RISING PHOENIX AVIATION, INC.	10/01/2021	\$400.00	\$0.00	\$0.00	\$400.00	\$400.00
36079	RISING PHOENIX AVIATION, INC.	10/31/2021	\$1,681.75	\$0.00	\$0.00	\$1,681.75	\$1,681.75
36079	RISING PHOENIX AVIATION, INC.	12/01/2021	\$1,681.75	\$0.00	\$0.00	\$1,681.75	\$1,681.75
36079	RISING PHOENIX AVIATION, INC.	01/31/2022	\$1,681.75	\$1,681.75	\$0.00	\$0.00	\$1,681.75
36079	RISING PHOENIX AVIATION, INC.	03/03/2022	\$1,681.75	\$0.00	\$0.00	\$0.00	\$1,681.75
36079	RISING PHOENIX AVIATION, INC.	10/31/2021	\$400.00	\$0.00	\$0.00	\$400.00	\$400.00
36079	RISING PHOENIX AVIATION, INC.	12/01/2021	\$400.00	\$0.00	\$0.00	\$400.00	\$400.00
36079	RISING PHOENIX AVIATION, INC.	12/31/2021	\$320.00	\$0.00	\$320.00	\$0.00	\$320.00
36079	RISING PHOENIX AVIATION, INC.	01/31/2022	\$320.00	\$320.00	\$0.00	\$0.00	\$320.00
36079	RISING PHOENIX AVIATION, INC.	03/03/2022	\$320.00	\$0.00	\$0.00	\$0.00	\$320.00
36451	JOHNSON, CHRIS	03/03/2022	\$80.00	\$0.00	\$0.00	\$0.00	\$80.00
36595	ANTLE, STEPHEN	03/03/2022	\$577.78	\$0.00	\$0.00	\$0.00	\$577.78
36615	WOOLF, WILLIAM	03/03/2022	\$385.00	\$0.00	\$0.00	\$0.00	\$385.00
36864	COWAN GROUP	03/03/2022	\$3,176.00	\$0.00	\$0.00	\$0.00	\$3,176.00
38012	GIORDANO, MIKE	03/03/2022	\$325.00	\$0.00	\$0.00	\$0.00	\$325.00
38127	GARCIA, MICHAEL	03/03/2022	\$335.00	\$0.00	\$0.00	\$0.00	\$335.00
38602	DONBUSH, KEN	01/31/2022	\$80.00	\$80.00	\$0.00	\$0.00	\$80.00
38602	DONBUSH, KEN	03/03/2022	\$80.00	\$0.00	\$0.00	\$0.00	\$80.00
42047	AVIATION ADVENTURES LLC	01/02/2022	\$120.00	\$0.00	\$120.00	\$0.00	\$120.00
42047	AVIATION ADVENTURES LLC	01/16/2022	\$80.00	\$80.00	\$0.00	\$0.00	\$80.00
42047	AVIATION ADVENTURES LLC	03/03/2022	\$40.00	\$0.00	\$0.00	\$0.00	\$40.00
42203	DULLES AVIATION INC	01/31/2022	\$45.71	\$45.71	\$0.00	\$0.00	\$45.71
42203	DULLES AVIATION INC	03/03/2022	\$240.00	\$0.00	\$0.00	\$0.00	\$240.00
46712	RICHTER, PAUL	07/31/2021	\$17.78	\$0.00	\$0.00	\$17.78	\$17.78
46712	RICHTER, PAUL	08/31/2021	\$23.00	\$0.00	\$0.00	\$23.00	\$23.00
74842	ZIMMERMAN, DANIEL	01/15/2022	\$80.00	\$80.00	\$0.00	\$0.00	\$80.00
74842	ZIMMERMAN, DANIEL	12/31/2021	\$80.00	\$0.00	\$80.00	\$0.00	\$80.00
77257	ARM FINANCIAL LLC	03/03/2022	\$80.00	\$0.00	\$0.00	\$0.00	\$80.00
78055	INDULGENCE AERO LLC	01/31/2022	\$80.00	\$80.00	\$0.00	\$0.00	\$80.00

78055	INDULGENCE AERO LLC	03/03/2022	\$80.00	\$0.00	\$0.00	\$0.00	\$80.00
78057	COLTON, JON	08/06/2021	\$449.73	\$0.00	\$0.00	\$449.73	\$449.73
78201	EYBERS, JOHN M	03/02/2022	\$335.00	\$0.00	\$0.00	\$0.00	\$335.00
78201	EYBERS, JOHN M	01/31/2022	\$1,500.00	\$1,500.00	\$0.00	\$0.00	\$1,500.00
78201	EYBERS, JOHN M	03/03/2022	\$1,835.00	\$0.00	\$0.00	\$0.00	\$1,835.00
82269	N146SB, LLC	12/30/2021	\$110.97	\$0.00	\$110.97	\$0.00	\$110.97
82272	MB AVIATION LLC	12/01/2021	\$258.06	\$0.00	\$0.00	\$258.06	\$258.06
83998	FLEETSHARES CORP	03/03/2022	\$160.00	\$0.00	\$0.00	\$0.00	\$160.00
83998	FLEETSHARES CORP	01/31/2022	\$80.00	\$80.00	\$0.00	\$0.00	\$80.00

EXPENDITURES									
ORG	OBJ	ACCOUNT DESCRIPTION	ORIGINAL APPROP	TRANFRS/ADJSMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	% USED
57003703	411000	Salaries and Wages	607,700	148,000	755,700	358,885.73	0.00	396,814	47.50
57003703	411020	Board and Elections Stipends	10,000	0	10,000	9,400.00	0.00	600	94.00
57003703	412000	S&W-On-Call	23,300	0	23,300	17,261.45	0.00	6,039	74.10
57003703	416000	S&W-Overtime	25,000	0	25,000	11,589.00	0.00	13,411	46.40
57003703	416010	Hours Worked on a Holiday	800	0	800	1,230.50	0.00	-431	153.80
57003703	416015	Call-Back Overtime	0	0	0	362.19	0.00	-362	100.00
57003703	420000	Employee Benefits	266,500	0	266,500	0.00	0.00	266,500	0.00
57003703	420002	Deferred Compensation	0	0	0	1,702.62	0.00	-1,703	100.00
57003703	420004	FICA	0	0	0	32,875.36	0.00	-32,875	100.00
57003703	420006	Virginia Retirement System	0	0	0	51,316.61	0.00	-51,317	100.00
57003703	420008	Group Health	0	0	0	44,483.47	0.00	-44,483	100.00
57003703	420010	Worker's Compensation	0	0	0	4,014.22	0.00	-4,014	100.00
57003703	420012	Group Term Life Insurance	0	0	0	4,977.68	0.00	-4,978	100.00
57003703	420014	Long Term Disability	0	0	0	1,557.83	0.00	-1,558	100.00
57003703	420016	Unemployment	0	0	0	42.40	0.00	-42	100.00
57003703	420031	Car Allowance	6,030	0	6,030	4,430.78	0.00	1,599	73.50
57003703	431000	Professional Services	75,000	0	75,000	3,562.65	10,462.35	60,975	18.70
57003703	431004	Legal Fees	25,000	0	25,000	0.00	0.00	25,000	0.00
57003703	432000	Temporary Help Services	2,500	0	2,500	0.00	0.00	2,500	0.00
57003703	435000	Print Bind Photo Services	1,500	0	1,500	0.00	0.00	1,500	0.00
57003703	436000	Advertising Services	60,000	0	60,000	5,043.29	0.00	54,957	8.40
57003703	439000	Other Purchased Services	18,000	192	18,192	9,819.58	2,191.66	6,180	66.00
57003703	441000	Information Technology Charges	57,830	0	57,830	48,192.00	0.00	9,638	83.30
57003703	441005	Phones and Voicemail Charges	18,170	0	18,170	15,142.00	0.00	3,028	83.30
57003703	441045	IT GIS Mapping Charges	8,020	0	8,020	6,684.00	0.00	1,336	83.30
57003703	441050	IT Purchases Mid-Year	1,000	0	1,000	3,873.96	0.00	-2,874	387.40
57003703	442000	Motor Vehicle Charges	49,380	0	49,380	41,150.00	0.00	8,230	83.30
57003703	444000	Cost Allocation Charges	182,960	0	182,960	152,468.00	0.00	30,492	83.30
57003703	447000	Radio Charges	1,550	0	1,550	1,292.00	0.00	258	83.40
57003703	451001	Utilities	20,000	1,924	21,924	13,509.89	1,924.36	6,490	70.40
57003703	451002	City Utility Charges	127,000	0	127,000	82,136.57	0.00	44,863	64.70
57003703	452003	Cell Phone Charges	4,500	0	4,500	4,133.02	0.00	367	91.80
57003703	452007	Cable/Satellite TV Service	3,000	0	3,000	1,207.26	0.00	1,793	40.20
57003703	452008	Telephone Service Charges	500	61	561	87.25	0.00	473	15.60
57003703	453000	Insurance	55,500	0	55,500	39,100.00	0.00	16,400	70.50
57003703	454001	Operating Leases	3,500	1,407	4,907	2,119.76	1,233.22	1,554	68.30
57003703	455001	Mileage	1,000	0	1,000	264.82	0.00	735	26.50
57003703	455002	Training and Travel	12,500	0	12,500	1,309.33	0.00	11,191	10.50
57003703	455005	Meeting / Business Expense	8,000	0	8,000	1,910.54	0.00	6,089	23.90
57003703	458000	Dues Memberships & Other Exp	6,500	0	6,500	5,686.00	0.00	814	87.50
57003703	458099	Miscellaneous Expense--Airport	25,000	0	25,000	0.00	0.00	25,000	0.00
57003703	461000	Office Supplies	3,500	0	3,500	447.76	0.00	3,052	12.80
57003703	462000	Other Supplies	5,000	0	5,000	4,915.41	0.00	85	98.30
57003703	463000	Books and Subscriptions	500	0	500	0.00	0.00	500	0.00
57003703	464000	Uniforms and Safety Apparel	3,500	0	3,500	3,082.60	0.00	417	88.10

57003703	471000	Equipment & Machinery Purch	46,000	0	46,000	24,776.50	0.00	21,224	53.90
57003703		Total 57003703 Airport Operations	1,765,740	151,584	1,917,324	1,016,044.03	15,811.59	885,468	53.80
57003710	433000	Maintenance Services	55,000	810	55,810	34,590.17	635.34	20,585	63.10
57003710	433001	Refuse Collection Services	6,000	594	6,594	4,153.32	0.00	2,440	63.00
57003710	433003	Janitorial Services	25,000	1,709	26,709	13,678.12	1,709.44	11,322	57.60
57003710	433006	Mowing Services	17,200	0	17,200	0.00	0.00	17,200	0.00
57003710	433008	HVAC	8,000	0	8,000	5,291.96	7,957.00	-5,249	165.60
57003710	433009	Elevator Services	6,000	0	6,000	0.00	0.00	6,000	0.00
57003710	433010	Snow Removal	25,000	0	25,000	22,544.38	0.00	2,456	90.20
57003710	433012	Airfield Lighting Maintenance	2,500	0	2,500	0.00	0.00	2,500	0.00
57003710	433014	Elevator Inspections	2,000	0	2,000	97.90	0.00	1,902	4.90
57003710	433015	Vehicle/Apparatus Maintenance	35,000	0	35,000	0.00	0.00	35,000	0.00
57003710	439000	Other Purchased Services	36,000	0	36,000	18,259.32	0.00	17,741	50.70
57003710	439004	Paving Services	65,000	0	65,000	0.00	0.00	65,000	0.00
57003710	439008	Hazmat Disposal	17,000	348	17,348	8,339.88	348.03	8,660	50.10
57003710	439014	Security Services	92,000	20,683	112,683	38,137.65	31,152.52	43,393	61.50
57003710	454004	Miscellaneous Rentals	2,000	0	2,000	0.00	0.00	2,000	0.00
57003710	462000	Other Supplies	26,000	0	26,000	653.26	0.00	25,347	2.50
57003710	462001	Tools	10,000	0	10,000	2,750.42	0.00	7,250	27.50
57003710	462044	Airfield Lighting Supplies	15,000	0	15,000	2,303.91	0.00	12,696	15.40
57003710	462046	Airport Hanger Supplies	20,000	0	20,000	1,895.88	0.00	18,104	9.50
57003710	462047	Airfield Supplies	11,000	0	11,000	1,700.50	0.00	9,300	15.50
57003710	462048	Security Supplies	20,000	5,875	25,875	10,151.11	0.00	15,724	39.20
57003710	462052	Terminal Grounds Supplies	5,000	0	5,000	63.83	0.00	4,936	1.30
57003710	462067	Maintenance Supplies	2,500	0	2,500	3,229.62	0.00	-730	129.20
57003710	466000	Building and Repair Materials	35,000	0	35,000	5,919.64	0.00	29,080	16.90
57003710	467000	Fuels/Oils/Lubricants	11,500	0	11,500	3,091.97	0.00	8,408	26.90
57003710	468000	Vehicle/Equipment Parts/Supp	25,000	0	25,000	11,891.68	0.00	13,108	47.60
57003710	471000	Equipment & Machinery Purch	60,000	0	60,000	47,350.00	0.00	12,650	78.90
57003710		Total 57003710 Airport Maintenance	634,700	30,020	664,720	236,094.52	41,802.33	386,823	41.80
57003711	433000	Maintenance Services	14,000	0	14,000	0.00	0.00	14,000	0.00
57003711	433008	HVAC	2,500	0	2,500	0.00	0.00	2,500	0.00
57003711	433009	Elevator Services	3,000	0	3,000	1,993.75	0.00	1,006	66.50
57003711	433014	Elevator Inspections	1,000	0	1,000	701.00	0.00	299	70.10
57003711	462000	Other Supplies	3,000	0	3,000	59.00	0.00	2,941	2.00
57003711		Total 57003711 FAA Tower Nonreimbur	23,500	0	23,500	2,753.75	0.00	20,746	11.70
57003712	433000	Maintenance Services	14,000	401	14,401	6,093.60	400.66	7,906	45.10
57003712	451002	City Utility Charges	18,500	0	18,500	13,367.99	0.00	5,132	72.30
57003712	451003	Heating Fuel Oil or Gas	1,000	1,013	2,013	0.00	1,013.03	1,000	50.30
57003712		Total 57003712 FAA Tower Reimbursab	33,500	1,414	34,914	19,461.59	1,413.69	14,038	59.80
57003713	416000	S&W-Overtime	3,000	0	3,000	0.00	0.00	3,000	0.00
57003713	433003	Janitorial Services	2,500	0	2,500	0.00	0.00	2,500	0.00
57003713	439000	Other Purchased Services	15,000	0	15,000	5,000.00	0.00	10,000	33.30
57003713	439014	Security Services	500	0	500	0.00	0.00	500	0.00
57003713	462000	Other Supplies	12,000	0	12,000	0.00	0.00	12,000	0.00
57003713		Total 57003713 Airport-Special Proj	33,000	0	33,000	5,000.00	0.00	28,000	15.20
57003793	462000	Other Supplies	100,000	0	100,000	0.00	0.00	100,000	0.00
57003793	481001	Principal - Bonds Payable	211,030	0	211,030	536,414.25	0.00	-325,384	254.20

57003793	481021	Interest - Bonds Payable	30,170	0	30,170	27,548.17	0.00	2,622	91.30
57003793	492575	Transfer to Airport Capital	1,682,000	0	1,682,000	1,582,000.00	0.00	100,000	94.10
57003793	496004	Contrib to Net Position	456,460	0	456,460	0.00	0.00	456,460	0.00
57003793		Total 57003793 Airprt Capex-Finance	2,479,660	0	2,479,660	2,145,962.42	0.00	333,698	86.50
Grand Total			4,970,100	183,017	5,153,117	3,425,316.31	59,027.61	1,668,773	67.60





# **Fuel Flowage and Aircraft Operations April Update**



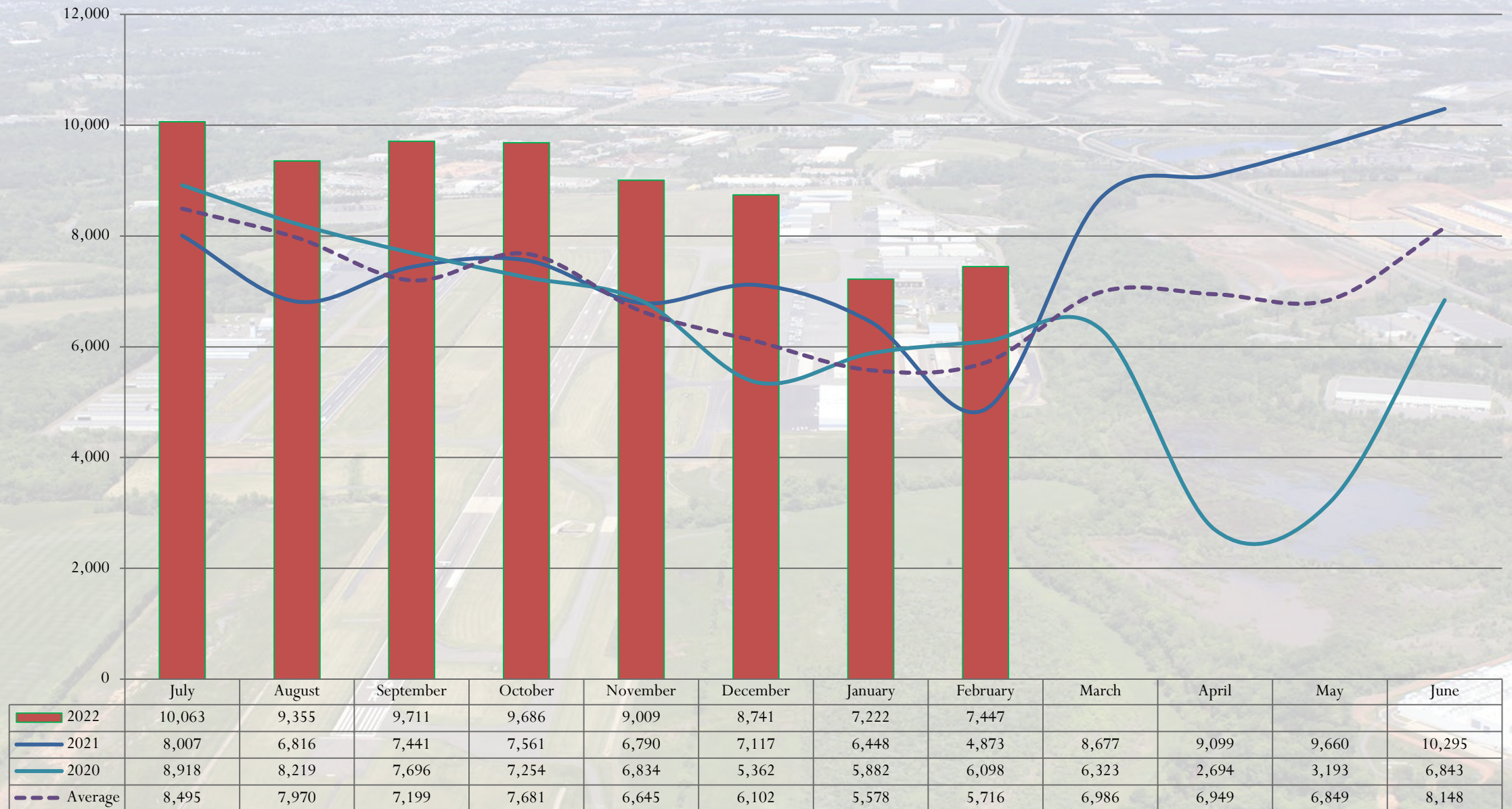
OPERATIONS – TOTALS					
Calendar Year	Operations		Fiscal Year	Operations	
2017	83,911		2017	89,654	
2018	79,930		2018	80,714	
2019	85,701		2019	83,130	
2020	74,765		2020	75,316	
2021	105,617		2021	92,784	
2022	14,669		2022	71,234	
Calendar Year	Local	Itinerant	Fiscal Year	Local	Itinerant
2017	37,380	46,531	2017	43,798	45,856
2018	33,538	46,392	2018	34,270	46,444
2019	39,264	46,437	2019	36,409	46,721
2020	30,815	43,950	2020	33,442	41,874
2021	51,377	54,240	2021	41,540	51,244
2022	6,935	7,734	2022	34,651	36,583

PERCENT CHANGE			
Month	FY2019/FY2020	FY2020/FY2021	FY2020/FY2021
July	13.82%	-10.22%	25.68%
August	1.96%	-17.07%	37.25%
September	35.14%	-3.31%	30.51%
October	-5.84%	4.23%	28.10%
November	6.95%	-0.64%	32.68%
December	-11.03%	32.73%	22.82%
January	13.53%	9.62%	12.00%
February	0.61%	-20.09%	52.82%
March	-16.02%	37.23%	
April	-63.36%	237.75%	
May	-57.20%	202.54%	
June	-12.65%	50.45%	
Total	-9.40%	23.19%	

**Note - Incomplete Year**  
**Stats through February 28, 2022**

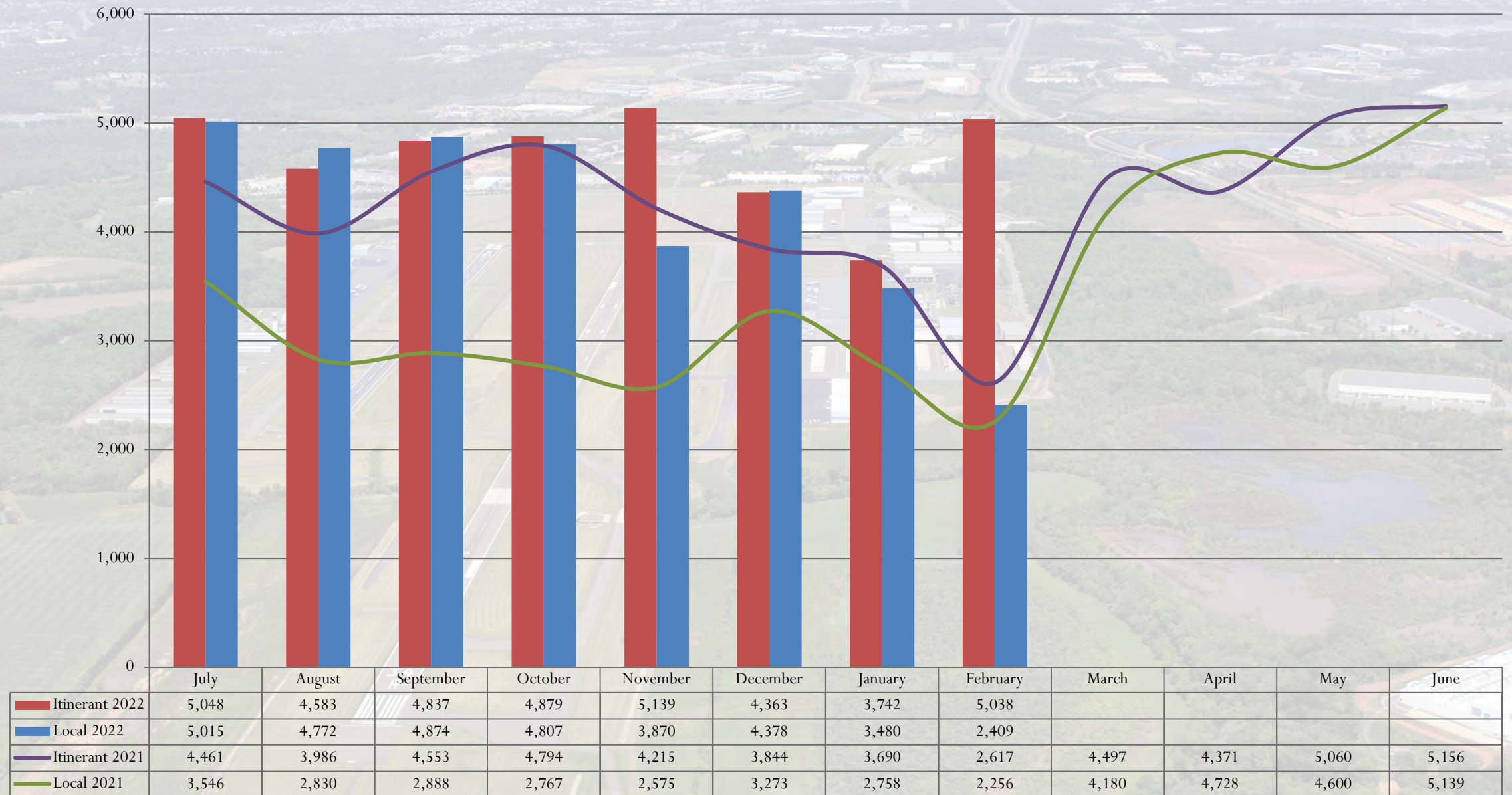


## Monthly Aircraft Operations - Fiscal





## Local Vs Itinerant - Fiscal



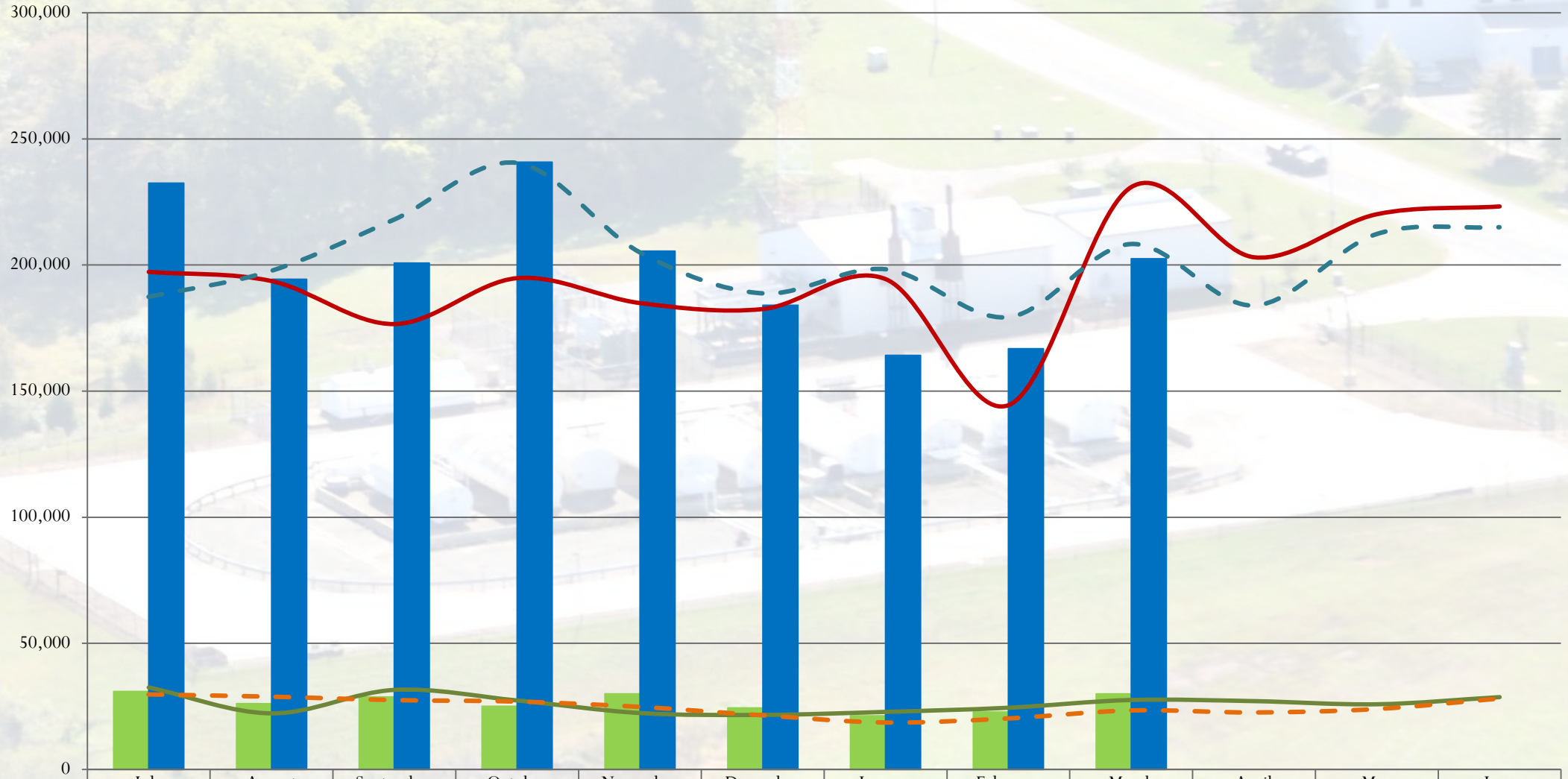


## FUEL FLOWAGE – TOTALS

Calendar	AVGAS	JETA	TOTAL	% Change	Fiscal	AVGAS	JETA	TOTAL	% Change
2017	311,650	2,633,283	2,944,933	3.56%	2017	316,294	2,659,679	2,975,973	3.06%
2018	296,197	2,576,100	2,872,297	-2.47%	2018	306,885	2,551,238	2,858,123	-3.96%
2019	284,689	2,458,013	2,742,702	-4.51%	2019	292,146	2,552,229	2,844,375	-0.48%
2020	309,565	2,013,409	2,322,974	-15.30%	2020	265,136	2,110,967	2,376,103	-16.46%
2021	445,781	2,350,237	2,796,018	20.36%	2021	361,457	2,298,628	2,660,085	11.95%
2022	112,154	495,436	607,590		2022	384,941	1,646,022	2,030,963	

**Note - Incomplete Year**  
**Stats through April 1, 2022**

## Monthly Fuel Flowage - Fiscal



	July	August	September	October	November	December	January	February	March	April	May	June
AVGAS 2022	30,911	26,156	28,771	25,073	29,959	24,438	21,254	22,816	29,999	0	0	0
JETA 2020	232,484	194,404	200,831	240,814	205,522	184,010	164,195	166,817	202,509	0	0	0
AVGAS 2021	32,521	22,253	31,552	27,360	22,373	21,637	22,829	24,473	27,552	27,102	25,850	28,681
JETA 2021	197,278	193,642	176,583	194,795	184,915	182,531	194,423	144,419	230,885	203,078	220,133	223,220
Average AVGAS	29,753	28,859	27,519	26,926	24,823	21,485	18,637	20,262	23,425	22,633	23,988	28,146
Average JETA	187,364	197,688	218,029	240,475	204,997	188,723	198,301	179,291	208,302	183,917	212,274	214,985





## MANASSAS REGIONAL AIRPORT COMMISSION

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<b>MEETING DATE:</b>	April 21, 2022
<b>TIME ESTIMATE:</b>	8 Minutes
<b>AGENDA TITLE:</b>	Quarterly Fuel and Aircraft Operations Report
<b>RECOMMENDATION:</b>	N/A
<b>MOTION:</b>	
<b>DATE LAST CONSIDERED BY COMMISSION:</b>	N/A – Information Only
<b>SUMMARY AND/OR COMMENTS:</b>	This is a quarterly presentation on the Airport's number of Operations and Fuel Flowage. Information will be presented on PowerPoint slides with an analysis on past numbers and future trends.
<b>FISCAL IMPACT:</b>	N/A
<b>STAFF CONTACT:</b>	Jolene Berry, 257-8279

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Airport Director



## MANASSAS REGIONAL AIRPORT COMMISSION

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**MEETING DATE:** April 21, 2022

**TIME ESTIMATE:** 8 Minutes

**AGENDA TITLE:** Quarterly Airport Maintenance Report

**RECOMMENDATION:** N/A

**MOTION:**

**DATE LAST CONSIDERED BY COMMISSION:** N/A – Information Only

**SUMMARY AND/OR COMMENTS:** This is a quarterly presentation from Airport Maintenance on projects, equipment, and other related items.

**FISCAL IMPACT:** N/A

**STAFF CONTACT:** Doug McCauley, 257-8425

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Airport Director



## MANASSAS REGIONAL AIRPORT COMMISSION

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**MEETING DATE:** April 21, 2022

**TIME ESTIMATE:** 10 Minutes

**AGENDA TITLE:** Discuss List of Potential Projects for BIL Funding.

**RECOMMENDATION:** Approve a project(s) that the Airport will use FAA Airport Infrastructure Grant (AIG) funds through the BIL to fund at 90%.

**MOTION:** **I move that the Airport apply for AIG funding to pay for the Observation Road Relocation and Drainage Improvement Project.**

**DATE LAST CONSIDERED BY COMMISSION:** N/A

**SUMMARY AND/OR COMMENTS:** According to the FAA, the Bipartisan Infrastructure Law (BIL) is an investment in America's transportation network. It is intended to modernize infrastructure, increase equity in transportation, help fight climate change, strengthen the supply chain, and create jobs. The Airport Commission was presented with three (3) possible project for the use of the FAA AIG funding. The projects were: 1) Runway Extension 2) Observation Road Relocation and Drainage Improvement and 3) Taxiway X-Ray Construction. The staff is recommending the funds be used for the Observation Road Relocation and Drainage Improvement project.

**FISCAL IMPACT:** Projects under the BIL are funded by the FAA at both 90% and 95%. The Virginia Department of Aviation has indicated that they will fund 8% and 3% respectively. BIL project would have to be approved by the City Council and the funds Budgeted and Appropriated as necessary.

**STAFF CONTACT:** Juan E. Rivera, (703) 257-8425

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Airport Director



# Manassas Regional Airport

Potential BIL Projects

March 17, 2022





## Bipartisan Infrastructure Law (BIL)

- ✈ Provides \$15 billion for Airport Infrastructure Grants (AIG) as defined under the existing AIP Grant and PFC criteria (\$3 billion per year over 5 Years & allocated by formula). The money can be invested in runways, taxiways, safety and sustainability projects.
- ✈ For FY22, \$2.89 billion has been made available to U.S. airports around the nation.
- ✈ FY 2022 Allocations for Virginia is \$76,967,453.00.
- ✈ FY 2022 Allocations for HEF is \$763,000.00.



# Bipartisan Infrastructure Law (BIL)

✈️ Approximately \$2.91 billion is available annually starting fiscal year (FY) 2022 through FY 2026. Funds not obligated at the end of the 4<sup>th</sup> FY will be recovered and made available for competitive grants in the fifth year.

FY funds are first made available:	Funds must be obligated (under grant) by:	Any unobligated funds must be obligated (under grant) as competitive grants in:
2022	September 30, 2025	FY 2026
2023	September 30, 2026	FY2027
2024	September 30, 2027	FY2028
2025	September 30, 2028	FY 2029
2026	September 30, 2029	FY 2030





## Bipartisan Infrastructure Law (BIL)

- ✈️ BIL AIG grants follow eligibility and justification criteria for the AIP and Passenger Facility Charge (PFC) program.
- ✈️ BIL AIG allocated funds can be saved to combine into one BIL AIG grant in a later FY.
- ✈️ Projects funded with BIL funds will follow AIP contract and procurement rules and grant assurances.
- ✈️ BIL funds can be used on additional phases of a current AIP funded project, but will be under separate grant.
- ✈️ Grants funded with BIL AIG allocated funds will have the same Federal share as your AIP grants (90% FAA & 8% VDOA).









## Bipartisan Infrastructure Law (BIL)

✈️ AIG Allocated funds can be used to fund a design only grant. A design only grant will include a grant condition that the associated development will begin within two years after the design is completed. BIL AIG grants follow eligibility and justification criteria for the AIP and Passenger Facility Charge (PFC) program.








## Criteria Used for Potential AIG Projects

-  Improve Airport Safety
-  Increase Airport Capacity
-  Preserving Airport Infrastructure (Reconstruction & Rehabilitation)
-  Generate Revenues
-  Projects that getting FAA funding will be a challenge (AIP Discretionary).
-  Maximizes available funds (Federal & State Funds are available) with less Airport Funding.



## Potential AIG Projects


### Runway 34R Extension (300 Feet)

-  AIG Funds would cover the entire estimated cost of \$3.7 million (AIG \$3.8 million)
-  AIP funding for this project may be challenging (runway extensions are not a high priority) for this project, therefore AIG funding would get the project completed in a timely manner and get the runway to it final length.
-  Eligible for State Funding.
-  We have to wait until the new ALP has been approved with the Master Plan Update (September 2023) to get started.
-  All of the AIG funding (5 years) would be dedicated to this one project.



## Potential AIG and ATP Projects






### Construct Taxilane X-Ray

-  We can accelerate the project (Start the design FY2022 & Construct in FY 2023/24).
-  The project will help generate revenue for the Airport by providing airside accessibility.
-  Not all of the AIG funds will be used ( ~ \$2.3 million surplus).
-  Eligible for State Funding.



## Potential AIG and ATP Projects

### Observation Road Relocation and Drainage Improvements

-  We would use less Local Funds for the project.
-  The project will help generate revenue for the Airport by providing leasable space.
-  Most all of the AIG funds will be used ( ~ \$800K surplus).
-  Local funds dedicated to this project could be redirected to other projects (Snow Removal Equipment).
-  Eligible for State Funding.



Observation Road Relocation & Drainage Improvements

		FY2022 (July)	FY2023 (Jan)	FY 2024	FY 2025	FY 2026	Total Paid
Total Estimated Project Cost	\$3,450,000.00						
FAA AIF Funding 90%	\$3,105,000.00	\$763,000.00	\$763,000.00	\$763,000.00	\$763,000.00	\$53,000.00	\$3,105,000.00
Virginia Department of Aviation (VDOA) 8%	\$276,000.00	\$0.00	\$276,000.00	\$0.00	\$0.00	\$0.00	\$276,000.00
Airport Fund 2%	\$69,000.00	\$1,648,000.00	\$0.00	(\$763,000.00)	(\$763,000.00)	(\$53,000.00)	\$69,000.00
		\$2,411,000.00	\$1,039,000.00	\$0.00	\$0.00	\$0.00	\$3,450,000.00
		\$2,411,000.00	\$3,450,000.00				
<b>Airport Fund Reimbursement</b>	\$1,648,000.00	\$0.00	\$0.00	\$763,000.00	\$763,000.00	\$53,000.00	\$1,579,000.00

FAA AIF Funding	90.00%
VDOA	8.00%
Airport Fund	2.00%



## WILDLIFE HAZARD MANAGEMENT PLAN



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## SIGNATURE PAGE

This Wildlife Hazard Management Plan (WHMP) and its contents are administered by the authority of the Airport Director of the Manassas Regional Airport.

Signature affixed below.

Signed: \_\_\_\_\_  
Juan E. Rivera, Airport Director

Date: \_\_\_\_\_

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THIS PLAN IS VALID ONE, 1, YEAR FROM THE SIGNED DATE.

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## REVISION LOG

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# City of Manassas Manassas Regional Airport Wildlife Hazard Management Plan

## 1.0 BACKGROUND

### 1.1 Scope

The 889 acres that comprise Manassas Regional Airport are an attractant for many different kinds of wildlife. In March of 2000, a survey of the airport was conducted by a United States Department of Agriculture (USDA) inspector. The wildlife that were surveyed were white-tailed deer, red fox, ground hogs, European starlings, black birds, crows, wild turkeys, ring-billed gulls, Canada geese, turkey vultures and various other birds. All of the wildlife mentioned can be a hazard to aircraft operations at the Manassas Regional Airport.

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### 1.2 Objectives

The objective of the Wildlife Hazard Management Plan (WHMP) is to minimize wildlife populations on and around the airport that pose a threat to aviation safety or to structures, equipment and human health.

### 1.3 Strike History and Hazards

This section will address the history of strikes at Manassas Regional Airport and the attractants that are present on and in the vicinity of the airport.

#### 1.3.1 Strike History

The FAA's National Wildlife Strike Database was reviewed on April 14, 2022. One Hundred Eighty-One, 181, wildlife strikes were reported between 1992 and 2022. The last entry was on March 10, 2022. This is an average of 6 strikes per year. Out of the 181 reported, twenty-one, 21, strikes resulted in minor damage and five, 5, strikes resulting in substantial damage. The Airport will strive to minimize the amount of strikes that occur.

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#### 1.3.2 Wildlife Attractants

Several features on and adjacent to the Manassas Regional Airport are considered to be wildlife attractants. The Airport is situated in the 100 year flood plain and marshy grasslands around the Airport attract many deer and birds. Broad Run, a local waterway, passes under Runway 16L/34R on the southern end of the airfield. This tends to attracts various waterfowl, deer, and other animals. A wetland mitigation area on the East Side of the airfield is also attractive to waterfowl, such as Canada geese. There are two fast-food restaurants located ¾

mile from the approach end of 16L which attract sea gulls. Hundreds, and on rare occasions, thousands, of sea gulls descend on the Airport pavement to eat worms during times when the ground becomes saturated following a rain storm. There are two water retention ponds located less than a mile north east of the airport. Both retention ponds attract Canada geese and duck up to a hundred at a time. There is a sod farm located on the south west end of the Airport. The activity from this farm tends to attract various forms of wildlife.

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## 2.0 PLAN ADMINISTRATORS

The following Airport personnel are administrators who have the authority for implementing this plan:

Juan Rivera, Airport Director

Jolene Berry, Airport Operations Officer, Senior

Richard Allabaugh, Airport Operations Officer

Doug McCauley, Airport Maintenance Supervisor

Brian Smith, Airport Maintenance Worker

Roger Carriker, Airport Maintenance Worker

Nicholas Villafan, Airport Maintenance Worker

Local City of Manassas Animal Control Officers and the USDA provide assistance when requested.

**Deleted:** Jeff Clayborn

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**Deleted:** Doug McCauley, Airport Maintenance Worker ¶

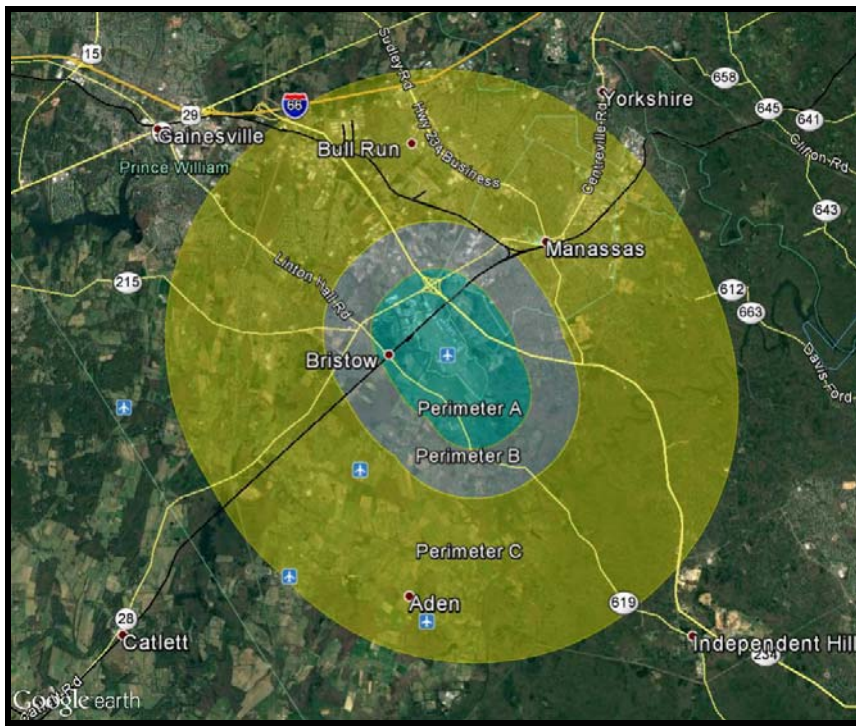
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### 3.0 AIRPORT LAND USES PERTAINING TO WILDLIFE

The following sections will discuss land use and as they pertain to wildlife control at the Manassas Regional Airport.

#### 3.1 Separation Criteria for Hazardous Wildlife Attractants

The Manassas Regional Airport serves piston-powered aircraft and turbine powered aircraft. The airport will try to minimize the presence of hazardous wildlife attractants by maintaining a 5,000 foot and 10,000 foot distance between the attractant and the nearest air operations area, AOA. In addition to this separation, the Airport will make every attempt to protect the approach, departure and circling airspace surrounding the airport (5 mile range). Separation Criteria Map for the Airport is depicted below.



### 3.2 Landscaping and Maintenance

Airport Maintenance Staff will actively maintain areas within the AOA. All grass will be cut to recommended heights on a routine basis. Due to limited staffing and airport acreage, Airport Maintenance, with the occasional guidance from Airport Operations, will prioritize landscaping inside the AOA. Any additional time will be spent on issues outside the AOA.

### 3.3 Aesthetic Landscaping

Trees and foliage, especially those with high litter, are contributors to wildlife attractants. They provide a means of shelter and food source for birds and other wildlife species. The following guidelines will be used as it pertains to aesthetic landscaping around the Airport:

- Only allowed outside of AOA.
- Reference the Virginia Department of Forestry (DOF) Guide for approved airport foliage (trees and bushes with little to no litter).
- Any plans should be reviewed by airport staff. Comments from a qualified airport wildlife biologist will be utilized should the situation permit.
- Landscaping should be continuously monitored for wildlife attraction or activity.
- Attempt to remove landscaping that can cause wildlife activity.

### 3.4 Turfgrass

At this time, the Airport has not implemented a turf mowing or management plan. Turf grass has not been used at the Manassas Regional Airport. In the event it is used, the following guidelines will be referenced for maintaining and planting of turfgrass.

- New plantings should not contain millet, ryegrass, other large-seed producing varieties or clover.
- Existing plantings containing millet, ryegrass, other large-seed-producing varieties or clover should be managed in such a manner as to prevent plant maturation and seed production.
- The Airport will develop turf mowing and management plans, with the assistance of a qualified airport wildlife biologist is necessary, to minimize attraction of hazardous wildlife.

### 3.5 Existing Basins and Ponds

Ponds and basins provide a water source for birds and other wildlife. It is the preferred method that all basins or ponds located inside the AOA drain within a 48 hour period and remain totally dry between rainfalls.

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The Manassas Regional Airport has an open waterway, Broad Run, which travels underneath the Airport. Any modification of Broad Run would have to require an environmental impact study as to minimize the disturbance of the shoreline. The Airport monitors this waterway, but has not pursued a modification

The Airport will monitor pond conditions and levels of existing ponds or basins to ensure that the 48 hour drainage period applies. Any pond or basin that has not drained will be assessed and modified in order to minimize the wildlife attractant. This effort will be coordinated with the Airport District Office, ADO.

When constant water flow is anticipated or if portions will not dry, there ~~will be~~ concrete or paved pad and/or ditch/swale constructed in the bottom to prevent vegetation that may provide nesting habitat. The Airport has multiple concrete ditches placed around the AOA. Airport Maintenance Staff actively maintains the ditch line and will minimize the growth of any vegetation as to reduce the attractant of wildlife.

### 3.6 New Ponds and Basins

The Airport will take the following guidelines into consideration when addressing new ponds or basins around the airport:

~~—~~ The preferred method will be the use of underground systems.

When ~~underground systems are~~ not possible, ponds/basins will be:

- Designed, engineered, and maintained to drain in a maximum of ~~36~~ hours and remain totally dry between rainfalls
- Narrow, linear in shape with steep rip-rep sides; no vegetation in or around pond/basin
- Placed outside of the airport's AOA.
- Ideally placed at least approx 2 miles away from other open water sources and not across runway from other open water sources.

### 3.7 Waste Disposal Operations

Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) (AIR 21) prohibits the construction or establishment of a new municipal solid waste landfills, MSWLF, within 6 statute miles of public use airports.

The Prince William County Landfill is located approximately ~~7.75~~ miles south-southeast of the Manassas Regional Airport. This distance complies with AIR 21 Section 503.

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### 3.8 Composting

The following will be used as it pertains to composting on the Airport”

- On- airport disposal of composting by-products will not be allowed.
- Off airport property composting operations should be located no closer than the greater of the following distances: 1,200 feet from any AOA or the distance called for by airport design requirement (see AC 150/5300-13, Airport Design).

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### 3.9 Water Management Facilities

The Upper Occoquan Sewage Authority is located approximately 6.5 miles north north-east from the airport. This does not pose as a serious attractant for wildlife at the Airport.

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The Airport has an active Storm Water Protection Plan, SWPP, which requires staff to monitor all storm water outfalls for proper flow as to prevent a build-up of any standing water.

When it is not possible to drain a detention pond or other standing water basins, the Airport will implement the use of physical barriers, such as bird balls, wires grids, pillows, or netting, to deter birds and other hazardous wildlife.

### 3.10 New Storm Water Management Facilities

Stormwater detention ponds should be designed, constructed, and maintained for a maximum 36 hours detention period after the design storm and remains completely dry between storms. The Airport will oversee plans for any storm water construction that occurs within the AOA.

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### 3.11 Artificial Marshes

The FAA strongly recommends against establishing artificial marshes within the separation indentified in Sections 1-2 through 1-4 of AC 150/5200-33B (5,000 feet and 10,000 feet as they pertain to the Airport). The Airport will monitor and try to eliminate the existence of any artificial marshes.

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At the time of this WHMP, there are no known marshes located within the AOA.

### 3.12 Wetlands

The Airport will continuously monitor the AOA for potential wetland development. Plan Administrators will be alerted to any wildlife use or habitat changes in these areas that could affect safe aircraft operations. Drainage ditches, grass areas, and waterways will be maintained by Airport Maintenance with oversight from Airport Operations.

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### 3.13 Golf Courses

The FAA recommends against construction of new golf courses within the separations identified in Sections 1-2 through 1-4 of Advisory Circular, AC, 150/5200-33B. Existing golf courses located within these separations must develop a program to reduce the attractiveness of the sites to species that are hazardous to aviation safety.

There are two golf courses located within the vicinity of the airport: Broad Run Golf and Practice Facility located to the west (5,000 feet) and Bristow Manor Golf Club located to the south west (7,500 feet). The Broad Run course has permanently been closed, but still presents an attractant to the wildlife. Both golf courses are within the separation limitations identified in Section 3.1. The Airport will work with the golf courses to ensure steps are taken to reduce wildlife within the vicinity of the airport.

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### 3.14 Wildlife Habitats

The FAA recommends that operators of airports surrounded by woodlands, water, or wetlands refer to Section 2.4 of AC 150/5200-33B. The Manassas Regional Airport will provide for a Wildlife Hazard Assessment (WHA) should there be funding available.

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At this time, the Manassas Regional Airport does not have identified wildlife habitats present inside the AOA.

### 3.15 Local Coordination

The cooperation of the airport community is necessary when new projects are considered. The Airport will try to incorporate public activities and/or notification emails to help educate the airport community of potential hazardous wildlife attractants. Enforcing good habits around the airport (e.g. closing lids on dumpsters, picking up garbage, resist feeding wildlife, etc) will be a routine activity.

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Input must be considered from involved parties when potentially hazardous wildlife attractants are being proposed for development on or off airport property. The Airport is part of a notification list of the local planning boards for all communities and jurisdictions located within 5 miles of the airport.

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### 3.16 Notice to Airmen of Wildlife Hazards

The Airport will issue a Notice to Airmen (NOTAM) to any recent and pertinent wildlife activity and will actively encourage the land-owners to take steps to control the wildlife hazard and minimize further attraction.

According to the remarks section of the FAA Airport/Facility Directory (FAA, 2014), there are “BIRDS & DEER ON & INVOF ARPT [in the vicinity of the airport].” Notices to Airmen (NOTAMs) are not routinely used in wildlife reporting as they are time specific. The Airport uses a permanent publication to notify the flying public of the wildlife activity. It is also reported in the ATIS information issued by Manassas ATCT.

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## 4.0 WILDLIFE HAZARD MANAGEMENT TECHNIQUES

The following wildlife hazard management techniques are employed at Manassas Regional Airport:

### 4.1 Pyrotechnic Harassment with Bird Bangers

Bird Bangers produce a loud bang that is capable of traveling 50 to 125 feet. They are silent while in flight and then explode. They come as a standard loud report as well as an extra loud report. These pyrotechnic devices will be used in conjunction with screamer sirens to harass birds, deer, and other animals that are noise sensitive.

### 4.2 Pyrotechnic Harassment with Screamer Sirens

Screamer sirens produce an alarming siren-like sound and is capable of traveling 250-300 feet. There is no loud report following the siren. Screamer sirens are most effective when harassing gulls. These pyrotechnic devices will also be used in conjunction with bird bangers to harass birds, deer, and other animals that are noise sensitive.

### 4.3 Pyrotechnic Harassment with Shell Crackers

Shell crackers produce an extremely loud report that is capable of traveling 200 feet or more before exploding. They are silent while in flight and then explode. These pyrotechnics will be used to harass gulls, vultures, hawks, geese, and other high flying birds.

### 4.4 Pyrotechnic Harassment with Propane Bird Cannon

A propane bird cannon is employed to frighten birds from large fields. The cannon emit a loud boom at random intervals and can be used in conjunction with the pyrotechnic devices to scare away birds. This device is particularly used during the spring months in which large flocks of starlings congregate on the Airport.

### 4.5 Lethal Removal with Shotgun

A shotgun is employed to take limited numbers of birds in order to reinforce non-lethal dispersal techniques. The shotgun will be used under the authority of the Federal Fish and Wildlife Depredation Permit. A copy of the permit is attached to this plan in Appendix B.

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4.2 Pyrotechnic Harassment with Bird Bangers¶

¶ Bird Bangers are similar to rocket screams except that they are silent while in flight and then land explode with a tremendous bang. These pyrotechnic devices will be used in conjunction with screamers to harass birds and other animals that are noise sensitive. ¶

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**4.6 Lethal Removal with .270 Rifle**

A .270 rifle with scope will be used to remove deer and other mammals from airport property. Taking of deer and mammals will be done at night using a spotlight and during the day if they are found inside the AOA. A copy of the required Virginia Game and Inland Fisheries Permit is attached in Appendix C.

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**4.7 Lethal Removal with .22 Air Rifle**

A .22 air rifle with a scope is employed to take small to medium sized birds and small mammals in order to reinforce non-lethal dispersal techniques. Birds will be taken under the authority of the Federal Fish and Wildlife Depredation Permit. A copy of the permit is attached to this plan in Appendix B. Mammals will be taken in accordance with Prince William County rules for pest species.

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**4.8 Habitat Modification**

Grass on the Airport is kept cut to a length of 10" to 12" in order to make the area less attractive to wildlife. Grass near airfield lighting and navigational aids are kept at shorter lengths for operational needs.

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**4.9 Live Trapping**

Baited traps will be used to capture some wildlife, such as ground hogs, and foxes. During geese molting season, the Airport may employ the services of the USDA to capture and euthanize Canadian Geese.

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**4.10 Lethal Trapping**

Conibear and snare traps will be used to capture some wildlife, such as ground hogs, and foxes. Set traps will be monitored daily in accordance with trapping laws for Prince William County.

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**4.11 Food Source Reduction**

We will reduce food sources by reducing rodent populations, keeping trash cans and dumpsters closed at all times and by reducing the number of seed-bearing shrubs and trees on Airport property. The Airport will reference the USDA Forestry Guide for appropriate tree guidance.

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**4.12 Birdhouse Nesting Traps**

The Airport will trap nesting birds, specifically starlings, to reduce the amount of birds attempting to nest in engines and/or wings of based aircraft.

#### 4.13 V-Top Starling Trap

To supplement the birdhouse trap, the Airport will trap European Starlings during the fall and winter months, in order to reduce the amount of birds attempting to nest in engines and/or wings of based aircraft.

#### 4.14 Lethal Corn

The USDA and the Airport will work together when using poisonous corn on starlings during the summer months. The USDA will provide the poisonous corn while the Airport monitors the affected birds. To date, this method has not been utilized on the Airport. Should it be utilize, the Airport will coordinate all usage with the USDA.

#### 4.15 Perimeter Fence

The Airport has a perimeter security fence that encompasses all runways, taxiways, and apron areas. The vast majority of the perimeter fence is eight (8) feet tall with three strands of barbed wire. There are some older sections of fence that are only six (6) feet high with three strands of barbed wire. These areas are located around the fuel farm. The Airport periodically walks the fence line to look for areas that animals can enter.

Broad Run is a body of water that runs through the Airport from west to east and travels under runway 16L/34R. The Airport is unable to extend the fence across Broad Run since it would be destroyed during periods of flooding. Additionally, installation of the fencing would also require significant permitting which would not be feasible at this time.

#### 4.16 Wildlife Control Program

The Airport has incorporated a Wildlife Control Program in which selected individuals are authorized to use lethal control methods on airport property during the Prince William County Hunting Season. Participants of the program are encouraged to take both sexes of deer, not just trophy deer. Participants are also permitted to take wild turkey, goose and waterfowl during the appropriate hunting seasons.

In addition to in-season participation, participants are encouraged to be actively available during off-season to help further control deer populations around the airport. Wildlife Control Program supplements can be located in Appendix E and F.

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## 5.0 WILDLIFE PRIORITIES AND DISPERSAL METHODS

### 5.1 Priority List

The following list represents wildlife that is considered most hazardous to airport operations. They are listed in order of importance; with 'A' being of the highest priority.

- A. White-tailed Deer
- B. Canada Geese
- C. Ring-billed and other gulls
- D. Starlings, blackbirds, killdeer, & crows
- E. Mourning Doves
- F. Turkey Vultures
- G. Coyotes
- H. Ground Hogs
- I. Wild Turkeys
- J. Red Fox
- K. Red-Tailed Hawks

HIGHEST PRIORITY

LOWEST PRIORITY

### 5.2 Dispersal Methods

This section details hazard control methods for each species listed in Section 5.1 of this WHMP.

#### 5.2.1 White-tailed Deer

White-tailed deer present a large potential hazard to aircraft operations. FAA statistics indicate that deer strikes cause damage in 81% of occurrences. The FAA recommends a "zero tolerance" policy for deer on airports because of the extreme damage that can result from a deer strike. Several methods are employed to control the deer hazard at the Airport:

Deer that are observed in daylight are dispersed by vehicular harassment and by the use of pyrotechnics. Those deer that are found within the perimeter fence are driven to remote areas of the Airport and shot with a 12 gauge shot gun or .270 rifle. The carcass is typically taken to the landfill for proper disposal or donated to Hunters for the Hungry (a local organization).

Regular grass mowing is employed to make the airport environment less attractive to deer. The Airport no longer allows food crops such as corn or soy beans to be planted on unused Airport property.

Lethal removal is employed to reduce the deer population. A .270 caliber rifle equipped with a scope is used for removal. The Airport maintains a list of persons authorized to assist in the deer removal process. The Airport has a permit

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for deer hunting issued by the Virginia Department of Game and Inland Fisheries. It is renewed at the end of the calendar year.

The Airport has an established Wildlife Control Program that allows authorized personnel to hunt on Airport property during regular hunting seasons. Each hunter is required to have attended a Hunter's Safety Course, a yearly firearm safety course, and must hold a valid State Hunting License. Participants are restricted to areas outside of the Airport's perimeter fence. Supplements for the Wildlife Control Program are attached in Appendix E and F.

### 5.2.2 Canada Geese

Canada Geese are very large birds and present ~~a~~ severe collision hazard for aircraft.

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Canada Geese should be harassed with ~~bird bangers and /or~~ screamer ~~sirens~~ upon initial sighting. Canada geese will not be allowed to remain undisturbed in one place because they may begin to nest.

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Repeated sightings of Canada Geese on the runways and runway safety areas may be cause for lethal control measures as allowed by the Depredation Permit. Up to ~~200~~ Canada Geese per year may be taken under this permit. This permit is renewed every May.

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Whenever dispersing Canada Geese, it is insured that there are no aircraft taking off or landing which may come into contact with the dispersed flock. ~~Coordination is made~~ with the FAA Control Tower before dispersing Canada Geese.

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The USDA may conduct Canada Geese round-ups when needed on or around the airport property. Proper removal of the birds will be under the control of the Airport along with the USDA.

All Canada Geese carcasses will be collected and placed in plastic bags so scavengers will not gather. All kills will be noted in the Depredation Permit ~~and~~ ~~Control Log~~ so that an accurate count can be kept.

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### 5.2.3 Ring-billed Gulls & other Gulls

Gulls flock in great numbers to Airport surfaces. Gulls present a severe ~~hazard~~ to aircraft.

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Gulls ~~will~~ be harassed ~~initially~~ with screamer ~~sirens then~~ bird bangers as soon as they are noticed within the AOA.

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If a flock of gulls returns repeatedly within the runway or runway safety area, lethal enforcement will be used. The Depredation Permit allows for ~~250~~ ring-

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billed gulls, but only 5 herring gulls each year. All lethal methods are to be conducted under the regulations of the Depredation Permit.

Coordination with the FAA Control Tower will be made before dispersing a flock to ensure that as to not endanger the flight path of an aircraft.

Gull carcasses will be placed in plastic bags so scavengers will not gather. All kills will be noted in the Depredation Permit and control log so that an accurate count can be kept.

#### 5.2.4 Starlings, Blackbirds, Killdeer and Crows

Flocks of starlings, blackbird, killdeer, and crows will be dispersed with pyrotechnics, or bird cannon.

Bird house traps are set year round as to minimize the flock.

Coordination with the FAA Control Tower will be made before dispersing a flock to ensure that as to not endanger the flight path of an aircraft.

#### 5.2.5 Mourning Doves

Mourning doves will be dispersed with pyrotechnics when observed inside the AOA. Flocks tend to perch on fenced areas around the airport; some locations are in line with the approach and departure paths. Coordination with the FAA Control Tower will be made before dispersing a flock to ensure that as to not endanger the flight path of an aircraft.

Up to 150 mourning doves may be taken under the authority of the Depredation Permit.

#### 5.2.6 Turkey Vultures

Turkey vultures will be dispersed with pyrotechnics when observed inside the AOA.

Care should be taken to remove any animal carcasses so as to avoid attracting the turkey vulture.

Up to 30 turkey vultures and 30 black vultures may be taken under the authority of the Depredation Permit.

#### 5.2.7 Coyotes

Coyotes are considered a nuisance species by the Virginia Department of Game and Inland Fisheries and does not require a permit to mitigate. Coordinate with the FAA Control Tower will be made before dispersing a coyote. Lethal removal will be utilized on the species should it continuously pose a risk.

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**5.2.8 Ground Hogs**

Ground hogs will be trapped using humane methods and then turned over to a City of Manassas Animal Control Officer.

Lethal force may be necessary to control ground hogs that routinely avoid traps or pose a threat to the airport's infrastructure.

**5.2.9 Wild Turkeys**

Wild Turkeys will be dispersed by pyrotechnic harassment when observed near movement areas. The Commonwealth of Virginia permits wild turkeys to be taken outside of the normal seasons under the Airport's Wildlife Control Permit.

Participants of the Wildlife Control Program are allowed to lethally remove turkeys during the normal hunting season.

**5.2.10 Red Fox**

Humane traps are set to control the Red Fox population. Fox are generally shy and reclusive; thus they do not present a great danger to aircraft operations.

**5.2.11 Red-Tailed Hawks**

Red-tailed hawks will be dispersed using with pyrotechnics when observed inside the AOA.

Traps will be used in order to lure hawks away from the navigational aids, where they continuously perch.

Hawks will only be lethally removed when they have been trapped or positioned off a navigational aid. Only 2 hawks may be taken under the Depredation Permit. Extreme care will be taken as to not exceed this number.

**5.2.12 Bald Eagles**

There is a bald eagle nest that is located off airport property, but is continuously attended during nesting season. As a result, the airport is attended by bald eagles. The airport holds a special Eagle Depredation Permit, as noted in Section 7.3, which was acquired through the United States Fish and Wildlife Services. Should there be an eagle present on the airport that possess a risk, non-lethal harassment methods will be utilized to scare the bird from airport property. Under no circumstances, as noted in the permit, are staff permitted trap, injure or lethally remove an eagle.

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## 6.0 Recommended Equipment and Reporting

### 6.1 Recommended Equipment

The following equipment is used by the Plan Administrators in reducing wildlife hazards:

Airport vehicles and radios

Safety Equipment

- ~~Protective~~ eyewear
- ~~Ear~~ plugs/headset
- ~~Gun~~ safe

Firearms

- 12-Gauge Shotgun, with stainless steel loads (no lead shot).
- .270 caliber rifle with scope
- ~~.22 air powered pellet gun with scope~~

Scare tactics

- 15mm Single Shot Launcher with 6MM blanks
- ~~15mm Double Shot Launcher with 6MM blanks~~
- 15mm Seven Shot Launcher with 6MM blanks
- ~~15mm Screamer Sirens~~
- 15mm Bird Bangers
- ~~12 Gauge Shell Crackers~~
- Propane Cannon

Traps

- Wire Cage Traps
- ~~Birdhouse Nesting Traps~~
- ~~Conibear Traps~~
- ~~Snares~~

Carcass collection bags

- ~~Garbage~~ bags
- ~~Latex~~ gloves

Birdstrike collection kits

- Paper Towel (1)
- Eco Tru Cleansing Wipe (1)
- Ziploc Bag (1)
- Rubber (Nitrile) Gloves (2)
- Wet Wipe (1)
- FAA Form 5200-7 (1)
- ~~Self-addressed envelope (1)~~

Bird Identification

- ~~Field Guide to Birds of North America – Peterson~~
- ~~Field Guide to Birds of North America - Kaufman~~

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## 6.2 Recording Wildlife Control Measures, Observations, and Strikes

The Airport conducts a minimum of one airfield inspection per day. During this inspection, any discrepancies noted on documented on the Airfield Inspection Form. ~~Any wildlife spotted~~ during these inspections ~~is~~ also documented on this form. ~~Wildlife Control Techniques will be noted in the Wildlife Control Log.~~

As part of the Wildlife Control Program, referenced in on Section 4.1~~6~~ and 5.2.1, program participants are required to check-in and check-out of their daily activity. Upon check-out, they are required to report any game taken. This log is referenced when submitting the renewal application for the Department of Game and Inland Fisheries, DGIF, permit.

It is the Airport's procedure that if any struck wildlife is found within the AOA, ~~the appropriate bird strike~~ report will be filed with the FAA using FAA Form 5200-7. This form is submitted electronically and a paper copy is printed and filed.

It is also a requirement of both the United States Fish and Wildlife Services, USFWS, and, DGIF, permits that documentation be made of any wildlife or game taken under control of the permit.

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## 7.0 Airport Permits

### 7.1 Depredation Permit - USFWS

Plan Administrators must familiarize themselves with all the conditions of the attached Federal Fish and Wildlife Depredation Permit and obey those conditions accordingly. Plan Administrators must routinely document any birds taken under this permit as this permit requires an annual report to be submitted upon renewal.

This permit renews on April 30<sup>th</sup> of each calendar year under Permit #MB037505-0.

### 7.2 Wildlife Control at Airports - VDGIF

Plan Administrators must familiarize themselves with all the conditions of the attached Virginia Department of Game and Inland Fisheries Permit and obey those conditions accordingly. Plan Administrators must routinely document any game taken under this permit as this permit requires an annual report to be submitted upon renewal.

This permit renews on December 31<sup>st</sup> of each calendar year. There is no specific number assigned to this permit.

### 7.3 Eagle Depredation Permit – USFWS

In the past year, Plan Administrators noted bald eagle activity within a mile of the airport. This activity was caused by a nest positioned in a tree near the intersection of Wakeman Drive and Wakeman Court. It was recommended by the USDA that the Airport apply for a permit to harass eagles within the AOA, approach and departure zones. On August 20, 2014, the Airport applied for a Federal Eagle Depredation Permit and was issued the permit on August 28<sup>th</sup>, 2014. Plan Administrators must strictly document any eagles harassed under this permit as this permit requires an annual report to be submitted on January 31<sup>st</sup> of each year. A report is due even if there is no activity to report.

This permit renews every five year with the next renewal on July 31<sup>st</sup>, 2024 under Permit #MB44554B-0.

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## 8.0 Plan Evaluation

The Manassas Regional Airport will review the plan at least once per year. Federal Advisory Circulars, ~~Cert-Alerts~~, ~~and informational sources~~ will be references for potential changes and updates.

Throughout the review process, ~~Plan Administrators~~ will review the strike logs, ~~wildlife control logs~~, ~~daily inspections~~, and any additional reporting from the FAA Database to determine whether mitigation levels need to be maintained or increased.

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## 9.0 Training Program

When such training is available, all Plan Administrators will receive appropriate and thorough firearms training. They will also receive training in proper wildlife identification. Select Administrators will participate in the AAEE Certified Wildlife Management Courses. Additional training may be sought from an airport wildlife biologist to conduct a FAA Part 139.337(f) (7) (Wildlife Training Program) course.

Training will be documented in the Appendix E of the WHMP with a copy of the training placed in the Plan Administrators personal file.

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## 10.0 References

Cleary, E. C., & Dolbeer, R. A. (2005, July). *Wildlife Hazard Management at Airports*. Retrieved 3 20, 2012, from FAA Wildlife Mitigation: [http://wildlife-mitigation.tc.faa.gov/wildlife/downloads/2005\\_FAA\\_Manual\\_complete.pdf](http://wildlife-mitigation.tc.faa.gov/wildlife/downloads/2005_FAA_Manual_complete.pdf)

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Federal Aviation Administration. (2007, 08 28). *AC 150/5200-33B: Hazardous Wildlife Attractants On or Near Airports*. Retrieved 3 20, 2012, from FAA: [http://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.current/documentNumber/150\\_5200-33B](http://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5200-33B)

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**APPENDIX A**  
**ACRONYMS**

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## ACRONYMS

**AFD** – Airport Facility Directory

**ADO** – Airport District Office

**Airport** – Manassas Regional Airport

**AOA** – Airport Operations Area

**ATC** – Air Traffic Control

**ATIS** - Automatic Terminal Information Service

**VDGIF** – Virginia Department of Game and Inland Fisheries

**DOF** - Department of Forestry

**FAA** – Federal Aviation Administration

**NOTAM** – Notice to Airmen

**USDA** – United States Department of Agriculture

**USFWS** – United States Fish and Wildlife Services

**WHA** – Wildlife Hazard Assessment

**WHMP** – Wildlife Hazard Management Plan

**APPENDIX B**  
**CONTACT LIST**

## Contact List

### City of Manassas

Animal Control Services	703-257-8009 O
Police Communications Center	703-257-8000 O

### Eagle Reporting (Injured or Dead)

National Eagle Repository ( <a href="mailto:repository@fws.gov">repository@fws.gov</a> )	303-287-2110 O
DGIF Wildlife Conflict Line (24/7)	855-571-9003 O
Jeff Cooper (DGIF)	540-538-1021 C
Sergio Harding (DGIF)	804-367-0143 O
Kevin Rose (DGIF)	804-937-3193 C

### Hunters for Hungry

Linthicum's	703-754-4364 O
Hours: Mon-Fri - 8AM-8PM	
Sat – 8AM-5PM	
Sun – 8AM-12PM	
Gadell's Processing	703-361-1098 O

### Rehabilitators

DGIF Wildlife Conflict Line	855-571-9003 O
Licensed Rehabilitators (PWC)	<a href="https://goo.gl/U9NuDS">https://goo.gl/U9NuDS</a>

### USFWS

District Supervisor - Dage Blixt	703-897-7488 O
Law Enforcement	804-771-2883 O
Permits	413-253-8643 O
	413-253-8424 F
Wildlife Biologist - Ryan Stewart	703-417-1788 O
	703-897-7488 O

US Geological Survey Bird Banding Laboratory	800-327-2263 O
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### Virginia Department of Forestry

Senior Forester – Terry Lasher	540-347-6305 O
	540-270-2396 C
Main Office	703-324-1489 O
Warrenton Office	540-347-6358 O

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**VDGIF**

Conservation Police (24/7)	800-237-5712 O
Game Warden – L.R. Hawkins	540-899-4169 C
Game Warden - Mark Sinatra	540-295-2861 C
Wildlife Biologist – John Rohm	703-771-2545 O
Permits – Denise Harrison (denise.harrison@dgif.virginia.gov)	540-248-9360 O
	540-899-4381 F

<b>Wildlife Center of Virginia</b>	540-942-9453 O
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<b>Wildlife Rescue League</b>	703-440-0800 O
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APPENDIX **C**

**USFWS** DEPREDAATION PERMIT

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APPENDIX **D**

VIRGINIA DEPARTMENT OF GAME AND INLAND FISHERIES  
WILDLIFE POPULATION CONTROL PERMIT

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**APPENDIX E**

**USFWS EAGLE DEPREDAATION PERMIT**



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APPENDIX **E**  
TRAINING LOG

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## Training Log

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APPENDIX G  
WILDLIFE CONTROL PROGRAM

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## City of Manassas Manassas Regional Airport Wildlife Control Program

### **Purpose**

The Wildlife Control Program is intended to reduce the deer population on and around the airport as it poses a threat to aviation safety.

Over the past several years, there has been a significant reduction in deer activity on and around the airport. As a result, the Wildlife Control Program is temporarily suspended for all personnel, except Authorized Personnel. Program Administrators will continue to monitor deer activity and reevaluate the program prior to the start of subsequent seasons.

### **Program Administrators**

Richard Allabaugh, Airport Operations  
Jolene Berry, Airport Operations

### **Authorized Personnel**

Staff from the Manassas Regional Airport

### **Requirements for a Permit**

1. Valid State of Virginia hunting license and appropriate tags for deer or other game.
2. Completed a State Hunter Safety Education Course.
3. Complete yearly Firearm Safety Refresher Course, as provided by the City of Manassas PD and the Airport.
4. Notify the Airport at least 24 hours in advance of time desired to hunt.
5. Complete and sign a Wildlife Control Indemnification Agreement

### **Location**

Manassas Regional Airport owns 889 acres property; including 120 acres that are located in Prince William County. The Airport is allowing selected individuals to control wildlife populations on Airport property located south of Broad Run. The area is large enough for four (4) hunters to hunt safely. The area is broken down into four different quadrates: Each of the quadrates is 20-25 acres. There are two additional areas around the airport approved for wildlife control: the wooded area located West of the Control Tower, the wooded area East of the Fuel Farm. These locations are depicted on a separate map.

### **Wildlife Control Permit**

The control permit will be issued at the start of the control season. The permits will be valid for the entirety of the season. Participants will be provided with an updated copy when it is renewed.

**Permits are available at Manassas Regional Airport in the Administration Office Monday thru Friday from 8:30 am until 5:00 pm.**

*No permits will be issued on the weekend. Hunters are encouraged to plan accordingly.*

There will be three items issued to participants: a photo ID card giving permission to hunt on airport property, a parking permit that must be clearly visible and displayed on the front dash of the vehicle, and a copy of the airport's population control permit.

Revised 10-28-20

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APPENDIX **H**

## WILDLIFE CONTROL INDEMNIFICATION AGREEMENT

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¶  
¶<object>City of Manassas¶  
¶Manassas Regional Airport¶  
¶Wildlife Control Program¶

**¶Purpose¶**

¶  
¶The Wildlife Control Program is intended to reduce the deer population on and around the airport as it poses a threat to aviation safety. ¶

**¶Program Administrator¶**

¶  
¶Richard Allabaugh, Airport Operations¶

**¶Authorized Personnel¶**

¶  
¶Employees of the City of Manassas¶  
¶Federal Game Official¶  
¶State Game Official¶  
¶Selected Individuals¶

**¶Requirements for a Permit¶**

¶  
¶Valid State of Virginia hunting license and tags for deer.¶  
¶Completed a State Hunter Safety Education Course.¶  
¶Complete yearly Firearm Safety Refresher Course, as provided by the City of Manassas PD and the Airport.¶  
¶Notify the Airport at least 24 hours in advance of time desired to hunt (by close of business day on Fridays).¶  
¶Complete and sign a Wildlife Control Indemnification Agreement¶

**¶Location¶**

¶  
¶Manassas Regional Airport owns 893 acres property; including 120 acres that are located in Prince William County. The Airport is allowing selected individuals to control wildlife populations on Airport property located south of Broad Run. The area is large enough for 4 hunters to hunt safely. The area is broken down into four different quadrates: Each of the quadrates is 20-25 acres. There are two additional areas around the airport approved for wildlife control: the wooded area located West of the Control Tower, the wooded area East of the Fuel Farm. These locations are depicted on a separate map.¶

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**¶Wildlife Control Permit¶**

¶  
¶The control permit will be issued at the start of the control season. The permits will be valid for the entirety of the season.¶

¶  
¶Permits are available at Manassas Regional Airport in the Administration Office Monday thru Friday from 8:30 am until 5:00 pm.¶

¶  
¶No permits will be issued on the weekend. Hunters are encouraged to plan accordingly.¶

¶  
¶There will be three items issued to the participant: a permit card giving participant permission to hunt on airport property, a parking permit that must be displayed in the driver's side window, and a copy of the airport's population control permit.¶

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**City of Manassas  
Manassas Regional Airport  
Wildlife Control Indemnification Agreement**

**Wildlife Control Program**

The Manassas Regional Airport is surrounded by large wooded areas and Broad Run runs through the airport, providing a large source of water and shelter for wildlife, especially deer. The FAA recommends a "zero tolerance" policy for deer on airports because of the extreme damage that can result from a deer strike.

The purpose of this wildlife control program is to reduce the deer population on and around the airport as it poses a threat to aviation safety. Under this program, individuals are allowed to hunt during season on Airport property, which is located just off of Alessi Drive. In the off-season and at night, controlled kills, coordinated through Airport Operations, are designed to target select areas of the airport under the depredation permit. Individuals active under the wildlife control program are contacted to assist in the removal of deer throughout the year.

**Personal Information**

**First:** \_\_\_\_\_ **Last** \_\_\_\_\_

**Street Address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State** VA **Zip** \_\_\_\_\_

**Auto Make:** \_\_\_\_\_ **Color:** \_\_\_\_\_

**Auto License:** \_\_\_\_\_ **State:** \_\_\_\_\_

**State Hunting License Number:** \_\_\_\_\_

**Home Phone:** (\_\_\_\_) \_\_\_\_\_ **Work Phone:** (\_\_\_\_) \_\_\_\_\_

**Cell Phone:** (\_\_\_\_) \_\_\_\_\_

**Emergency Contacts**

**Name:** \_\_\_\_\_ **Name:** \_\_\_\_\_

**Relationship:** \_\_\_\_\_ **Relationship:** \_\_\_\_\_

**Phone:** (\_\_\_\_) \_\_\_\_\_ **Phone:** (\_\_\_\_) \_\_\_\_\_

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Manassas Regional Airport

Wildlife Control Indemnification Agreement

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Manassas Regional Airport

Wildlife Control Indemnification Agreement

***2022/2023 Wildlife Control Program*****RULES AND REGULATIONS**

1. The **PRIMARY GAME** will be deer. Participants should shoot both sexes, not just trophy bucks.
2. Participants will be permitted to hunt turkey, goose, and waterfowl during the appropriate seasons and in accordance with Virginia State and Prince William County Regulations.
3. Possession/consumption of alcoholic beverages on Airport property is prohibited
4. A valid Virginia State Hunting License and hunter education card shall be presented prior to receiving a wildlife control program permit.
5. Participation in the program is a privilege and may be revoked at any time by the Airport Director.
6. Only individuals that have completed a hunter safety course AND have completed a yearly gun safety class will be permitted to participate in the Wildlife Control Program.
7. Individuals must be 18 years of age or older to participate in the Wildlife Control Program.
8. Participants are prohibited from escorting or supervising individuals under the age of 18 to accompany or participate in the Wildlife Control Program.
9. The Wildlife Control Program requires participants to be actively available at least twice in a 12 month period (once during In-Season and once during Off-Season). Failure to do so will result in being removed from the program.
10. As required by the Airport, each participant shall wear blaze orange or blaze pink clothing while participating in the wildlife control functions, except as specified in Virginia State and Prince William County Regulations.
11. Wildlife control shall not be conducted in any area visible from public roadways, runways, or taxiways. Participants should be at least 500 feet from any runways and/or taxiway with firearms pointed in the opposite direction.
12. Personnel are reminded to stay in assigned area, as previously arranged by Airport Operations. Participants will be briefed on the area and be given a map marked with the specific location.
13. Zeroing-in of weapons is prohibited on Airport Property.
14. All weapons utilized in the program will comply with Virginia State and Prince William County Regulations.

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Manassas Regional AirportWildlife Control Indemnification Agreement

15. All participants are required to maintain their equipment in a safe operating condition at all times.
16. Weapons shall not be openly displayed, (i.e., gun racks, laying in seat, etc.), when entering and leaving the Airport or accessing assigned areas.
17. Weapons shall only be loaded in assigned areas and safeties must be on when not in a firing position.
18. In-season times will be in accordance with the Virginia State Regulations. Off-season times will be at the discretion of Airport Operations.
19. Game being transported shall be concealed from view.
20. There will be no vehicles transiting in areas where the wildlife control program is being conducted, unless there is an emergency.
21. ATVs are not permitted on airport property.
22. The use of blinds, tree stands, or trail cameras is permitted with the prior written approval of Airport Operations. Approved items must be removed at the end of the season.
23. Disposal of waste matter must be at an off-airport location.
24. Do not leave any trash behind and police any shell-casing prior to departing the area.
25. All participants are required to have emergency contact information on hand at the Airport Operations Office.
26. Participants are encouraged to contact the Game Warden to report any unauthorized vehicles or individuals that are not part of this program.
27. Participants are required to "check in" and "check out" with Airport Operations as directed and report ALL game removed from assigned areas as soon as practical. Notice of intent should be given at least 24 hours in advance, no exceptions.
28. Participants will be issued a photo ID and a parking permit. Parking permits must be clearly visible and displayed on the front dash of the vehicle. Photo IDs must be provided when requested by Airport Operations or security personnel.
29. Communication between participants should be coordinated through Airport Operations on the Operations Hotline.

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## Manassas Regional Airport

## Wildlife Control Indemnification Agreement

## 30. IN-SEASON - ONLY

This section addresses parking instructions when conducting activity during in-season times. No individual shall open any locked gate or cross the perimeter fence.

- a. **Zone 1** – Participants shall use the gate at the end of Moor Green Drive (combination 4/5/2/1). Participants must park their vehicle inside the gate in the cul-de-sac. While conducting activity and when leaving the area, participants shall lock the gate by securing the two locks together.
- b. **Zone 2 & 3** – Participants shall use the gate (combination 4/5/2/1) on either end of Alessi Drive and on top of the hill overlooking the Airport. Participants shall lock the gate by securing the two locks together when leaving their assigned area. Participants must park their vehicles outside of the gate.
- c. **Zone 4** – Participants shall park in the parking spaces to the left of 10600 Observation Road and make their way into Zone 4 on foot.
- d. **Zone 5** – Participants shall park in the paved area next to the electric vault and make their way into Zone 5 on foot.

31. **OFF-SEASON.** Coordination of off-season activities will be at the discretion of Airport Operations. Participants will be given prior notice with the date and time of the controlled event. Airport Operations will be responsible for contacting the appropriate authorities prior to the controlled event.

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Wildlife Control Indemnification Agreement  
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## Wildlife Control Program

The Manassas Regional Airport is surrounded by large wooded areas and Broad Run runs through the airport, providing a large source of water and shelter for wildlife, especially deer. The FAA recommends a "zero tolerance" policy for deer on airports because of the extreme damage that can result from a deer strike.

The purpose of this wildlife control program is to reduce the deer population on and around the airport as it poses a threat to aviation safety. Under this program, individuals are allowed to hunt during season on Airport property, which is located just off of Alessi Drive. In the off-season and at night, controlled kills, coordinated through Airport Administration, are designed to target select areas of the airport under the depredation permit. Individuals active under the wildlife control program are contacted to assist in the removal of deer throughout the year.

## Personal Information

First: Last

Street Address:

City: State VA Zip

Auto Make: Color:

Auto License: State:

State Hunting License Number:

Home Phone: ( ) Work Phone: ( )

Cell Phone: ( )

## Emergency Contacts

Name: Name:

Relationship: Relationship:

Phone: ( ) Phone: ( )

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## Weapon Information

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Manassas Regional Airport

Wildlife Control Indemnification Agreement

Agreement

I, \_\_\_\_\_, do hereby agree on behalf of myself, heirs, executor, assigns or administrator to assume the risk of any personal injury or loss or damage to property and do not hold the City of Manassas, its officials and employees liable while I am participating in Wildlife Control Program at Manassas Regional Airport.

**I have read and understand the rules for participation in the Wildlife Control Program and agree to abide by them.**

I further understand that failure to comply with any of the rules, regulation, safety measures, or verbal directives issued by Airport Operations will result in my dismissal from the program.

I agree to leave Manassas Regional Airport property immediately upon request from Airport Operations.

I agree that all activities related to the program are to be undertaken during my off-duty time.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

HEF Staff: \_\_\_\_\_ Date: \_\_\_\_\_

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**City of Manassas  
Manassas Regional Airport  
Wildlife Control: Check-In and Out Procedure**

Participants are required to “check in” and “check out” with Airport Operations when conducting any wildlife control activities.

The following is to be used by participants during In-Season activity.

1. Airport Operations requires a minimum of 24 hours of notice prior to conducting any activity on airport property. **There will be no exceptions.**
2. Participants must request a zone with an estimated time of arrival and departure. EX. “I would like to reserve Zone 2. I plan on being on site around 6 AM with a departure around 12 PM.”
3. Participants are required to contact Airport Operations, via the Ops Line, when they have departed the area and report **ALL** game taken. EX. “This is XXXX. I am checking out for the day. I have taken X game (indicate sex of game).” Or “This is XXXX. I am checking out for the day. No game was taken.”

NOTE: Off-Season activity is coordinated through Airport Operations and does not require participants to “check in” and “check out.”

**Airport Operations Hotline - (703)361-5488**

*Note: When texting, please use the following numbers.*

**Jolene Berry – 571-233-0230**

**Richard Allabaugh – 571-221-9411**

*The Operations Hotline does not accept text messages.*

**Game Warden – (800)237-5712**

*Participants are encouraged to contact the Game Warden to report any unauthorized vehicles or individuals that are not part of this program.*

**DISCLAIMER:** Any participant found to be conducting activity without prior notice, does not check-in or check-out with Airport Operations, and/or does not adhere to the Rules and Regulations of the Wildlife Control Program is subject to removal from the program.

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APPENDIX **L**

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of Transportation¶  
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**Administration**

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## **City of Manassas**

### **Manassas Regional Airport**

### **Wildlife Control Indemnification Agreement**

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#### Wildlife Control Program

The Manassas Regional Airport is surrounded by large wooded areas and Broad Run runs through the airport, providing a large source of water and shelter for wildlife, especially deer. The FAA recommends a “zero tolerance” policy for deer on airports because of the extreme damage that can result from a deer strike.

The purpose of this wildlife control program is to reduce the deer population on and around the airport as it poses a threat to aviation safety. Under this program, individuals are allowed to hunt during season on Airport property, which is located just off of Alessi Drive. In the off-season and at night, controlled kills, coordinated through Airport Administration, are designed to target select areas of the airport under the depredation permit. Individuals active under the wildlife control program are contacted to assist in the removal of deer throughout the year.

#### Personal Information

First: \_\_\_\_\_ Last: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State VA Zip: \_\_\_\_\_

Auto Make: \_\_\_\_\_ Color: \_\_\_\_\_

Auto License: \_\_\_\_\_ State: \_\_\_\_\_

State Hunting License Number: \_\_\_\_\_

Home Phone: (\_\_\_\_) \_\_\_\_\_ Work Phone: (\_\_\_\_) \_\_\_\_\_

Cell Phone: (\_\_\_\_) \_\_\_\_\_

Emergency Contacts

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Relationship: \_\_\_\_\_

Relationship: \_\_\_\_\_

Phone: (\_\_\_\_\_) \_\_\_\_\_

Phone: (\_\_\_\_\_) \_\_\_\_\_

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Weapon Information

Manufacturer: \_\_\_\_\_

Model: \_\_\_\_\_

Caliber: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Model: \_\_\_\_\_

Caliber: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

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***2011/2012 Wildlife Control Program***RULES AND REGULATIONS

The **PRIMARY GAME** will be deer. Participants should shoot both sexes, not just trophy bucks.

2. Possession/consumption of alcoholic beverages on Airport property is prohibited. A valid Virginia State Hunting License and hunter education card shall be presented prior to receiving a wildlife control program permit.

Participation in the program is a privilege and may be revoked at any time by the Airport Director.

Only individuals that have completed a hunter safety course AND have completed a yearly gun safety class will be permitted to participate in the Wildlife Control Program.

Individuals must be 18 years of age or older to participate in the Wildlife Control Program.

Participants are prohibited from escorting or supervising individuals under the age of 18 to participate in the Wildlife Control Program.

The Wildlife Control Program requires participants to be actively available at least twice in a 12 month period (once during In-Season and once during Off-Season). Failure to do so will result in being removed from the program.

As required by the Airport, each participant shall wear blaze orange clothing while participating in the wildlife control functions, except as specified in Virginia State Regulations for Prince William County.

Wildlife control shall not be conducted in any area visible from public roadways.

Personnel are reminded to stay in assigned area, as previously arranged by Airport Administration. Participants will be briefed on the area and be given a map marked with the specific location.

Zeroing-in of weapons is prohibited on Airport Property.  
All weapons utilized in the program will comply with Virginia State Regulations for Prince William County.

All participants are required to maintain their equipment in a safe operating condition at all times.

Weapons shall not be openly displayed, (i.e., gun racks, laying in seat, etc.), when entering and leaving the Airport or accessing assigned areas.

Weapons shall only be loaded in assigned areas and safeties must be on when not in a firing position.

In-season times will be in accordance with the Virginia State Regulations from sunrise to sunset. Off-season times will be at the discretion of Airport Administration.

Game being transported shall be concealed from view.  
There will be no vehicles transiting in areas where the wildlife control program is being conducted, unless there is an emergency.

ATVs are not permitted on airport property.

Disposal of waste matter must be at an off-airport location.

Do not leave any trash behind and police any shell-casing prior to departing the area.

All participants are required to have emergency contact information on hand at the Airport Administration Office.

Participants are required to “check in” and “check out” with Airport Administration as directed and report ALL game removed from assigned areas as soon as practical. Notice of intent should be given at least 24 hours in advance and before the end of business day on Friday.

Communication between participants should be coordinated through Airport Administration.

**IN-SEASON ONLY.** Participants shall use the gate (combination 4/5/2/1) on either end of Alessi Drive and on top of the hill overlooking the Airport. Participants shall lock the gate by securing the two locks together when leaving their assigned area. No individual shall open any locked gate or cross the Perimeter Fence. Participants should park their vehicles outside of the gate.

**OFF-SEASON.** Coordination of off-season activities will be at the discretion of Airport Administration. Participants will be given prior notice with the date and time of the controlled event. Airport Administration will be responsible for contacting the appropriate authorities prior to the controlled event.

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### Agreement

I, \_\_\_\_\_, do hereby agree on behalf of myself, heirs, executor, assigns or administrator to assume the risk of any personal injury or loss or damage to property while I am participating in wildlife control program at Manassas Regional Airport.

**I have read and understand the rules for participation in the wildlife control program and agree to abide by them.**

I further understand that failure to comply with any of the rules, regulation, safety measures, or verbal directives issued by Airport Administration will result in my dismissal from the program.

I agree to leave Manassas Regional Airport Property immediately upon request from Airport Administration.

I agree that all activities related to the program are to be undertaken during my off-duty time.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

HEF Staff: \_\_\_\_\_ Date: \_\_\_\_\_



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

# Advisory Circular

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**Subject: HAZARDOUS WILDLIFE  
ATTRACTANTS ON OR NEAR  
AIRPORTS**

**Date:** 8/28/2007

**AC No:** 150/5200-33B

**Initiated by:** AAS-300    **Change:**

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**1. PURPOSE.** This Advisory Circular (AC) provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. It also discusses airport development projects (including airport construction, expansion, and renovation) affecting aircraft movement near hazardous wildlife attractants. Appendix 1 provides definitions of terms used in this AC.

**2. APPLICABILITY.** The Federal Aviation Administration (FAA) recommends that public-use airport operators implement the standards and practices contained in this AC. The holders of Airport Operating Certificates issued under Title 14, Code of Federal Regulations (CFR), Part 139, Certification of Airports, Subpart D (Part 139), may use the standards, practices, and recommendations contained in this AC to comply with the wildlife hazard management requirements of Part 139. Airports that have received Federal grant-in-aid assistance must use these standards. The FAA also recommends the guidance in this AC for land-use planners, operators of non-certificated airports, and developers of projects, facilities, and activities on or near airports.

**3. CANCELLATION.** This AC cancels AC 150/5200-33A, *Hazardous Wildlife Attractants on or near Airports*, dated July 27, 2004.

**4. PRINCIPAL CHANGES.** This AC contains the following major changes, which are marked with vertical bars in the margin:

Technical changes to paragraph references.

Wording on storm water detention ponds.

Deleted paragraph 4-3.b, *Additional Coordination*.

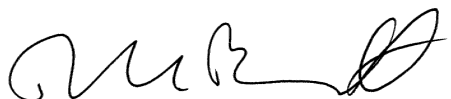
**5. BACKGROUND.** Information about the risks posed to aircraft by certain wildlife species has increased a great deal in recent years. Improved reporting, studies,

documentation, and statistics clearly show that aircraft collisions with birds and other wildlife are a serious economic and public safety problem. While many species of wildlife can pose a threat to aircraft safety, they are not equally hazardous. Table 1 ranks the wildlife groups commonly involved in damaging strikes in the United States according to their relative hazard to aircraft. The ranking is based on the 47,212 records in the FAA National Wildlife Strike Database for the years 1990 through 2003. These hazard rankings, in conjunction with site-specific Wildlife Hazards Assessments (WHA), will help airport operators determine the relative abundance and use patterns of wildlife species and help focus hazardous wildlife management efforts on those species most likely to cause problems at an airport.

Most public-use airports have large tracts of open, undeveloped land that provide added margins of safety and noise mitigation. These areas can also present potential hazards to aviation if they encourage wildlife to enter an airport's approach or departure airspace or air operations area (AOA). Constructed or natural areas—such as poorly drained locations, detention/retention ponds, roosting habitats on buildings, landscaping, odor-causing rotting organic matter (putrescible waste) disposal operations, wastewater treatment plants, agricultural or aquaculture activities, surface mining, or wetlands—can provide wildlife with ideal locations for feeding, loafing, reproduction, and escape. Even small facilities, such as fast food restaurants, taxicab staging areas, rental car facilities, aircraft viewing areas, and public parks, can produce substantial attractions for hazardous wildlife.

During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives worldwide, as well as billions of dollars in aircraft damage. Hazardous wildlife attractants on and near airports can jeopardize future airport expansion, making proper community land-use planning essential. This AC provides airport operators and those parties with whom they cooperate with the guidance they need to assess and address potentially hazardous wildlife attractants when locating new facilities and implementing certain land-use practices on or near public-use airports.

**6. MEMORANDUM OF AGREEMENT BETWEEN FEDERAL RESOURCE AGENCIES.** The FAA, the U.S. Air Force, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture - Wildlife Services signed a Memorandum of Agreement (MOA) in July 2003 to acknowledge their respective missions in protecting aviation from wildlife hazards. Through the MOA, the agencies established procedures necessary to coordinate their missions to address more effectively existing and future environmental conditions contributing to collisions between wildlife and aircraft (wildlife strikes) throughout the United States. These efforts are intended to minimize wildlife risks to aviation and human safety while protecting the Nation's valuable environmental resources.



DAVID L. BENNETT  
 Director, Office of Airport Safety  
 and Standards

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Table 1. Ranking of 25 species groups as to relative hazard to aircraft (1=most hazardous) based on three criteria (damage, major damage, and effect-on-flight), a composite ranking based on all three rankings, and a relative hazard score. Data were derived from the FAA National Wildlife Strike Database, January 1990–April 2003.<sup>1</sup>

Species group	Ranking by criteria			Composite ranking <sup>2</sup>	Relative hazard score <sup>3</sup>
	Damage <sup>4</sup>	Major damage <sup>5</sup>	Effect on flight <sup>6</sup>		
Deer	1	1	1	1	100
Vultures	2	2	2	2	64
Geese	3	3	6	3	55
Cormorants/pelicans	4	5	3	4	54
Cranes	7	6	4	5	47
Eagles	6	9	7	6	41
Ducks	5	8	10	7	39
Osprey	8	4	8	8	39
Turkey/pheasants	9	7	11	9	33
Hérons	11	14	9	10	27
Hawks (buteos)	10	12	12	11	25
Gulls	12	11	13	12	24
Rock pigeon	13	10	14	13	23
Owls	14	13	20	14	23
H. lark/s. bunting	18	15	15	15	17
Crows/ravens	15	16	16	16	16
Coyote	16	19	5	17	14
Mourning dove	17	17	17	18	14
Shorebirds	19	21	18	19	10
Blackbirds/starling	20	22	19	20	10
American kestrel	21	18	21	21	9
Meadowlarks	22	20	22	22	7

<sup>1</sup> Excerpted from the *Special Report for the FAA, "Ranking the Hazard Level of Wildlife Species to Civil Aviation in the USA: Update #1, July 2, 2003"*. Refer to this report for additional explanations of criteria and method of ranking.

<sup>2</sup> Relative rank of each species group was compared with every other group for the three variables, placing the species group with the greatest hazard rank for  $\geq 2$  of the 3 variables above the next highest ranked group, then proceeding down the list.

<sup>3</sup> Percentage values, from Tables 3 and 4 in Footnote 1 of the *Special Report*, for the three criteria were summed and scaled down from 100, with 100 as the score for the species group with the maximum summed values and the greatest potential hazard to aircraft.

<sup>4</sup> Aircraft incurred at least some damage (destroyed, substantial, minor, or unknown) from strike.

<sup>5</sup> Aircraft incurred damage or structural failure, which adversely affected the structure strength, performance, or flight characteristics, and which would normally require major repair or replacement of the affected component, or the damage sustained makes it inadvisable to restore aircraft to airworthy condition.

<sup>6</sup> Aborted takeoff, engine shutdown, precautionary landing, or other.

Swallows	24	23	24	23	4
Sparrows	25	24	23	24	4
Nighthawks	23	25	25	25	1

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## SECTION 1.

### GENERAL SEPARATION CRITERIA FOR HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS.

**1-1. INTRODUCTION.** When considering proposed land uses, airport operators, local planners, and developers must take into account whether the proposed land uses, including new development projects, will increase wildlife hazards. Land-use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife strikes.

The FAA recommends the minimum separation criteria outlined below for land-use

practices that attract hazardous wildlife to the vicinity of airports. Please note that FAA criteria include land uses that cause movement of hazardous wildlife onto, into, or across the airport's approach or departure airspace or air operations area (AOA). (See the discussion of the synergistic effects of surrounding land uses in Section 2-8 of this AC.)

The basis for the separation criteria contained in this section can be found in existing FAA regulations. The separation distances are based on (1) flight patterns of piston-powered aircraft and turbine-powered aircraft, (2) the altitude at which most strikes happen (78 percent occur under 1,000 feet and 90 percent occur under 3,000 feet above ground level), and (3) National Transportation Safety Board (NTSB) recommendations.

**1-2. AIRPORTS SERVING PISTON-POWERED AIRCRAFT.** Airports that do not sell Jet-A fuel normally serve piston-powered aircraft. Notwithstanding more stringent requirements for specific land uses, the FAA recommends a separation distance of 5,000 feet at these airports for any of the hazardous wildlife attractants mentioned in Section 2 or for new airport development projects meant to accommodate aircraft movement. This distance is to be maintained between an airport's AOA and the hazardous wildlife attractant. Figure 1 depicts this separation distance measured from the nearest aircraft operations areas.

**1-3. AIRPORTS SERVING TURBINE-POWERED AIRCRAFT.** Airports selling Jet-A fuel normally serve turbine-powered aircraft. Notwithstanding more stringent requirements for specific land uses, the FAA recommends a separation distance of 10,000 feet at these airports for any of the hazardous wildlife attractants mentioned in Section 2 or for new airport development projects meant to accommodate aircraft movement. This distance is to be maintained between an airport's AOA and the hazardous wildlife attractant. Figure 1 depicts this separation distance from the nearest aircraft movement areas.

**1-4. PROTECTION OF APPROACH, DEPARTURE, AND CIRCLING AIRSPACE.** For all airports, the FAA recommends a distance of 5 statute miles between the farthest edge of the airport's AOA and the hazardous wildlife attractant if the attractant could cause hazardous wildlife movement into or across the approach or departure airspace.

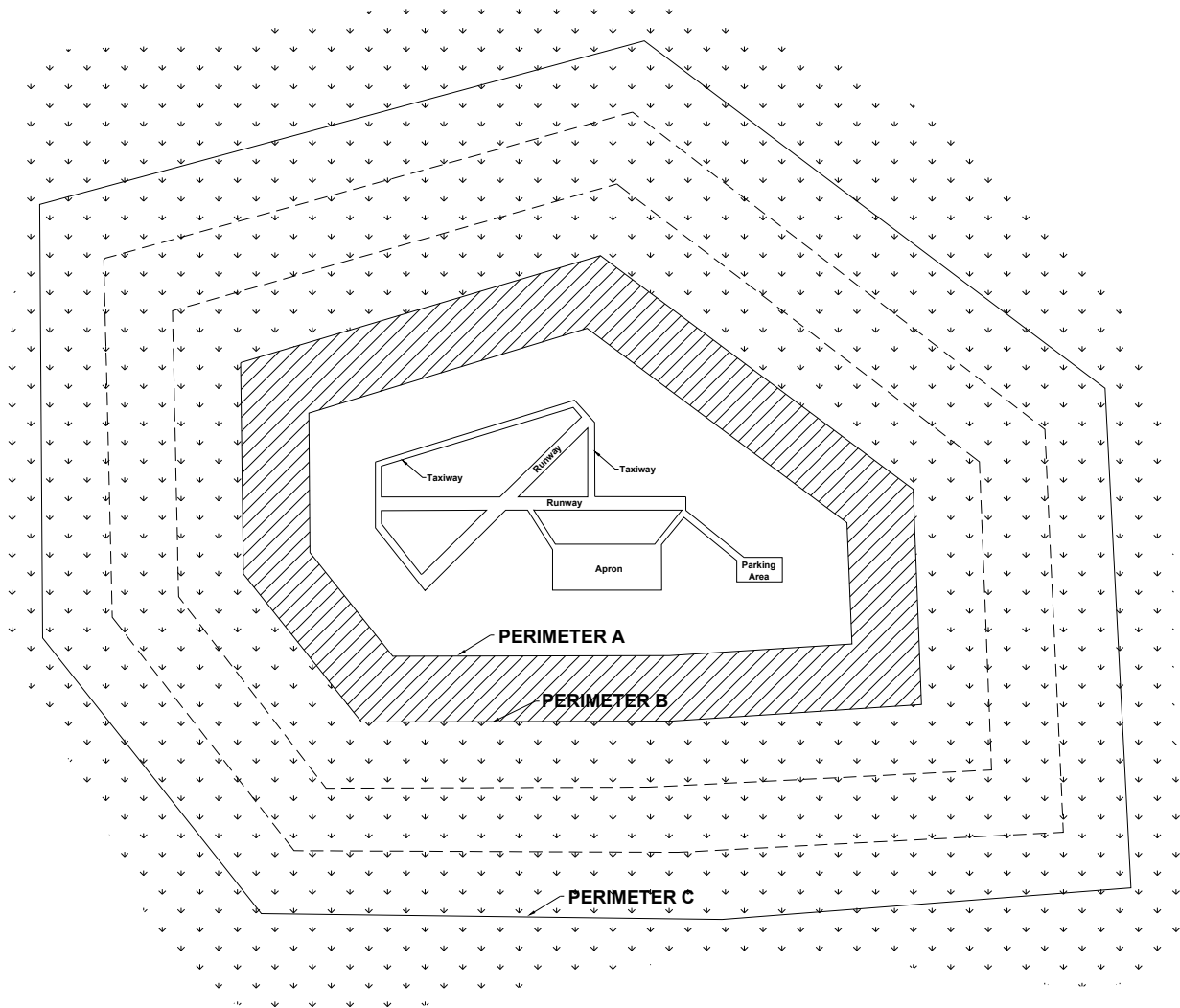


Figure 1. Separation distances within which hazardous wildlife attractants should be avoided, eliminated, or mitigated.

**PERIMETER A:** For airports serving piston-powered aircraft, hazardous wildlife attractants must be 5,000 feet from the nearest air operations area.

**PERIMETER B:** For airports serving turbine-powered aircraft, hazardous wildlife attractants must be 10,000 feet from the nearest air operations area.

**PERIMETER C:** 5-mile range to protect approach, departure and circling airspace.

## SECTION 2.

### LAND-USE PRACTICES ON OR NEAR AIRPORTS THAT POTENTIALLY ATTRACT HAZARDOUS WILDLIFE.

**2-1. GENERAL.** The wildlife species and the size of the populations attracted to the airport environment vary considerably, depending on several factors, including land-use practices on or near the airport. This section discusses land-use practices having the potential to attract hazardous wildlife and threaten aviation safety. In addition to the specific considerations outlined below, airport operators should refer to *Wildlife Hazard Management at Airports*, prepared by FAA and U.S. Department of Agriculture (USDA) staff. (This manual is available in English, Spanish, and French. It can be viewed and downloaded free of charge from the FAA's wildlife hazard mitigation web site: <http://wildlife-mitigation.tc.FAA.gov>.) And, *Prevention and Control of Wildlife Damage*, compiled by the University of Nebraska Cooperative Extension Division. (This manual is available online in a periodically updated version at: [ianrwww.unl.edu/wildlife/solutions/handbook/](http://ianrwww.unl.edu/wildlife/solutions/handbook/).)

**2-2. WASTE DISPOSAL OPERATIONS.** Municipal solid waste landfills (MSWLF) are known to attract large numbers of hazardous wildlife, particularly birds. Because of this, these operations, when located within the separations identified in the siting criteria in Sections 1-2 through 1-4, are considered incompatible with safe airport operations.

**Siting for new municipal solid waste landfills subject to AIR 21.** Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) (AIR 21) prohibits the construction or establishment of a new MSWLF within 6 statute miles of certain public-use airports. Before these prohibitions apply, both the airport and the landfill must meet the very specific conditions described below. These restrictions do not apply to airports or landfills located within the state of Alaska.

The airport must (1) have received a Federal grant(s) under 49 U.S.C. § 47101, et. seq.; (2) be under control of a public agency; (3) serve some scheduled air carrier operations conducted in aircraft with less than 60 seats; and (4) have total annual enplanements consisting of at least 51 percent of scheduled air carrier enplanements conducted in aircraft with less than 60 passenger seats.

The proposed MSWLF must (1) be within 6 miles of the airport, as measured from airport property line to MSWLF property line, and (2) have started construction or establishment on or after April 5, 2001. Public Law 106-181 only limits the construction or establishment of some new MSWLF. It does not limit the expansion, either vertical or horizontal, of existing landfills.

NOTE: Consult the most recent version of AC 150/5200-34, *Construction or*

*Establishment of Landfills Near Public Airports*, for a more detailed discussion of these restrictions.

**Siting for new MSWLF not subject to AIR 21.** If an airport and MSWLF do not meet the restrictions of Public Law 106-181, the FAA recommends against locating MSWLF within the separation distances identified in Sections 1-2 through 1-4. The separation distances should be measured from the closest point of the airport's AOA to the closest planned MSWLF cell.

**Considerations for existing waste disposal facilities within the limits of separation criteria.** The FAA recommends against airport development projects that would increase the number of aircraft operations or accommodate larger or faster aircraft near MSWLF operations located within the separations identified in Sections 1-2 through 1-4. In addition, in accordance with 40 CFR 258.10, owners or operators of existing MSWLF units that are located within the separations listed in Sections 1-2 through 1-4 must demonstrate that the unit is designed and operated so it does not pose a bird hazard to aircraft. (See Section 4-2(b) of this AC for a discussion of this demonstration requirement.)

**Enclosed trash transfer stations.** Enclosed waste-handling facilities that receive garbage behind closed doors; process it via compaction, incineration, or similar manner; and remove all residue by enclosed vehicles generally are compatible with safe airport operations, provided they are not located on airport property or within the Runway Protection Zone (RPZ). These facilities should not handle or store putrescible waste outside or in a partially enclosed structure accessible to hazardous wildlife. Trash transfer facilities that are open on one or more sides; that store uncovered quantities of municipal solid waste outside, even if only for a short time; that use semi-trailers that leak or have trash clinging to the outside; or that do not control odors by ventilation and filtration systems (odor masking is not acceptable) do not meet the FAA's definition of fully enclosed trash transfer stations. The FAA considers these facilities incompatible with safe airport operations if they are located closer than the separation distances specified in Sections 1-2 through 1-4.

**Composting operations on or near airport property.** Composting operations that accept only yard waste (e.g., leaves, lawn clippings, or branches) generally do not attract hazardous wildlife. Sewage sludge, woodchips, and similar material are not municipal solid wastes and may be used as compost bulking agents. The compost, however, must never include food or other municipal solid waste. Composting operations should not be located on airport property. Off-airport property composting operations should be located no closer than the greater of the following distances: 1,200 feet from any AOA or the distance called for by airport design requirements (see AC 150/5300-13, *Airport Design*). This spacing should prevent material, personnel, or equipment from penetrating any Object Free Area (OFA), Obstacle Free Zone (OFZ), Threshold Siting Surface (TSS), or Clearway. Airport

operators should monitor composting operations located in proximity to the airport to ensure that steam or thermal rise does not adversely affect air traffic. On-airport disposal of compost by-products should not be conducted for the reasons stated in 2-3f.

**Underwater waste discharges.** The FAA recommends against the underwater discharge of any food waste (e.g., fish processing offal) within the separations identified in Sections 1-2 through 1-4 because it could attract scavenging hazardous wildlife.

**Recycling centers.** Recycling centers that accept previously sorted non-food items, such as glass, newspaper, cardboard, or aluminum, are, in most cases, not attractive to hazardous wildlife and are acceptable.

**Construction and demolition (C&D) debris facilities.** C&D landfills do not generally attract hazardous wildlife and are acceptable if maintained in an orderly manner, admit no putrescible waste, and are not co-located with other waste disposal operations. However, C&D landfills have similar visual and operational characteristics to putrescible waste disposal sites. When co-located with putrescible waste disposal operations, C&D landfills are more likely to attract hazardous wildlife because of the similarities between these disposal facilities. Therefore, a C&D landfill co-located with another waste disposal operation should be located outside of the separations identified in Sections 1-2 through 1-4.

**Fly ash disposal.** The incinerated residue from resource recovery power/heat-generating facilities that are fired by municipal solid waste, coal, or wood is generally not a wildlife attractant because it no longer contains putrescible matter. Landfills accepting only fly ash are generally not considered to be wildlife attractants and are acceptable as long as they are maintained in an orderly manner, admit no putrescible waste of any kind, and are not co-located with other disposal operations that attract hazardous wildlife.

Since varying degrees of waste consumption are associated with general incineration (not resource recovery power/heat-generating facilities), the FAA considers the ash from general incinerators a regular waste disposal by-product and, therefore, a hazardous wildlife attractant if disposed of within the separation criteria outlined in Sections 1-2 through 1-4.

**2-3. WATER MANAGEMENT FACILITIES.** Drinking water intake and treatment facilities, storm water and wastewater treatment facilities, associated retention and settling ponds, ponds built for recreational use, and ponds that result from mining activities often attract large numbers of potentially hazardous wildlife. To prevent wildlife hazards, land-use developers and airport operators may need to develop management plans, in compliance with local and state regulations, to support the operation of storm water management facilities on or near all public-use airports to

ensure a safe airport environment.

**Existing storm water management facilities.** On-airport storm water management facilities allow the quick removal of surface water, including discharges related to aircraft deicing, from impervious surfaces, such as pavement and terminal/hangar building roofs. Existing on-airport detention ponds collect storm water, protect water quality, and control runoff. Because they slowly release water after storms, they create standing bodies of water that can attract hazardous wildlife. Where the airport has developed a Wildlife Hazard Management Plan (WHMP) in accordance with Part 139, the FAA requires immediate correction of any wildlife hazards arising from existing storm water facilities located on or near airports, using appropriate wildlife hazard mitigation techniques. Airport operators should develop measures to minimize hazardous wildlife attraction in consultation with a wildlife damage management biologist.

Where possible, airport operators should modify storm water detention ponds to allow a maximum 48-hour detention period for the design storm. The FAA recommends that airport operators avoid or remove retention ponds and detention ponds featuring dead storage to eliminate standing water. Detention basins should remain totally dry between rainfalls. Where constant flow of water is anticipated through the basin, or where any portion of the basin bottom may remain wet, the detention facility should include a concrete or paved pad and/or ditch/swale in the bottom to prevent vegetation that may provide nesting habitat.

When it is not possible to drain a large detention pond completely, airport operators may use physical barriers, such as bird balls, wires grids, pillows, or netting, to deter birds and other hazardous wildlife. When physical barriers are used, airport operators must evaluate their use and ensure they will not adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office.

The FAA recommends that airport operators encourage off-airport storm water treatment facility operators to incorporate appropriate wildlife hazard mitigation techniques into storm water treatment facility operating practices when their facility is located within the separation criteria specified in Sections 1-2 through 1-4.

**New storm water management facilities.** The FAA strongly recommends that off-

airport storm water management systems located within the separations identified in Sections 1-2 through 1-4 be designed and operated so as not to create above-ground standing water. Stormwater detention ponds should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period after the design storm and remain completely dry between storms. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, linearly shaped water detention basins. When it is not possible to place these ponds away from an airport's AOA, airport operators should use physical barriers, such as bird balls, wires grids, pillows, or netting, to prevent access of hazardous wildlife to open water and minimize aircraft-wildlife interactions. When physical barriers are used, airport operators must evaluate their use and ensure they will not adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office. All vegetation in or around detention basins that provide food or cover for hazardous wildlife should be eliminated. If soil conditions and other requirements allow, the FAA encourages the use of underground storm water infiltration systems, such as French drains or buried rock fields, because they are less attractive to wildlife.

**Existing wastewater treatment facilities.** The FAA strongly recommends that airport operators immediately correct any wildlife hazards arising from existing wastewater treatment facilities located on or near the airport. Where required, a WHMP developed in accordance with Part 139 will outline appropriate wildlife hazard mitigation techniques. Accordingly, airport operators should encourage wastewater treatment facility operators to incorporate measures, developed in consultation with a wildlife damage management biologist, to minimize hazardous wildlife attractants. Airport operators should also encourage those wastewater treatment facility operators to incorporate these mitigation techniques into their standard operating practices. In addition, airport operators should consider the existence of wastewater treatment facilities when evaluating proposed sites for new airport development projects and avoid such sites when practicable.

**New wastewater treatment facilities.** The FAA strongly recommends against the construction of new wastewater treatment facilities or associated settling ponds within the separations identified in Sections 1-2 through 1-4. Appendix 1 defines wastewater treatment facility as "any devices and/or systems used to store, treat, recycle, or reclaim municipal sewage or liquid industrial wastes." The definition includes any pretreatment involving the reduction of the amount of pollutants or the elimination of pollutants prior to introducing such pollutants into a publicly owned treatment works (wastewater treatment facility). During the site-location analysis for wastewater treatment facilities, developers should consider the potential to attract hazardous wildlife if an airport is in the vicinity of the proposed site, and airport operators should voice their opposition to such facilities if they are in proximity to the airport.

**Artificial marshes.** In warmer climates, wastewater treatment facilities sometimes



employ artificial marshes and use submergent and emergent aquatic vegetation as natural filters. These artificial marshes may be used by some species of flocking birds, such as blackbirds and waterfowl, for breeding or roosting activities. The FAA strongly recommends against establishing artificial marshes within the separations identified in Sections 1-2 through 1-4.

**Wastewater discharge and sludge disposal.** The FAA recommends against the discharge of wastewater or sludge on airport property because it may improve soil moisture and quality on unpaved areas and lead to improved turf growth that can be an attractive food source for many species of animals. Also, the turf requires more frequent mowing, which in turn may mutilate or flush insects or small animals and produce straw, both of which can attract hazardous wildlife. In addition, the improved turf may attract grazing wildlife, such as deer and geese. Problems may also occur when discharges saturate unpaved airport areas. The resultant soft, muddy conditions can severely restrict or prevent emergency vehicles from reaching accident sites in a timely manner.

**2-4. WETLANDS.** Wetlands provide a variety of functions and can be regulated by local, state, and Federal laws. Normally, wetlands are attractive to many types of wildlife, including many which rank high on the list of hazardous wildlife species (Table 1).

**NOTE:** If questions exist as to whether an area qualifies as a wetland, contact the local division of the U.S. Army Corps of Engineers, the Natural Resources Conservation Service, or a wetland consultant qualified to delineate wetlands.

**Existing wetlands on or near airport property.** If wetlands are located on or near airport property, airport operators should be alert to any wildlife use or habitat changes in these areas that could affect safe aircraft operations. At public-use airports, the FAA recommends immediately correcting, in cooperation with local, state, and Federal regulatory agencies, any wildlife hazards arising from existing wetlands located on or near airports. Where required, a WHMP will outline appropriate wildlife hazard mitigation techniques. Accordingly, airport operators should develop measures to minimize hazardous wildlife attraction in consultation with a wildlife damage management biologist.

**New airport development.** Whenever possible, the FAA recommends locating new airports using the separations from wetlands identified in Sections 1-2 through 1-4. Where alternative sites are not practicable, or when airport operators are expanding an existing airport into or near wetlands, a wildlife damage management biologist, in consultation with the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the state wildlife management agency should evaluate the wildlife hazards and prepare a WHMP that indicates methods of minimizing the hazards.

**Mitigation for wetland impacts from airport projects.** Wetland mitigation may be

necessary when unavoidable wetland disturbances result from new airport development projects or projects required to correct wildlife hazards from wetlands. Wetland mitigation must be designed so it does not create a wildlife hazard. The FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in Sections 1-2 through 1-4.

**(1) Onsite mitigation of wetland functions.** The FAA may consider exceptions to locating mitigation activities outside the separations identified in Sections 1-2 through 1-4 if the affected wetlands provide unique ecological functions, such as critical habitat for threatened or endangered species or ground water recharge, which cannot be replicated when moved to a different location. Using existing airport property is sometimes the only feasible way to achieve the mitigation ratios mandated in regulatory orders and/or settlement agreements with the resource agencies. Conservation easements are an additional means of providing mitigation for project impacts. Typically the airport operator continues to own the property, and an easement is created stipulating that the property will be maintained as habitat for state or Federally listed species.

Mitigation must not inhibit the airport operator's ability to effectively control hazardous wildlife on or near the mitigation site or effectively maintain other aspects of safe airport operations. Enhancing such mitigation areas to attract hazardous wildlife must be avoided. The FAA will review any onsite mitigation proposals to determine compatibility with safe airport operations. A wildlife damage management biologist should evaluate any wetland mitigation projects that are needed to protect unique wetland functions and that must be located in the separation criteria in Sections 1-2 through 1-4 before the mitigation is implemented. A WHMP should be developed to reduce the wildlife hazards.

**(2) Offsite mitigation of wetland functions.** The FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in Sections 1-2 through 1-4 unless they provide unique functions that must remain onsite (see 2-4c(1)). Agencies that regulate impacts to or around wetlands recognize that it may be necessary to split wetland functions in mitigation schemes. Therefore, regulatory agencies may, under certain circumstances, allow portions of mitigation to take place in different locations.

**(3) Mitigation banking.** Wetland mitigation banking is the creation or restoration of wetlands in order to provide mitigation credits that can be used to offset permitted wetland losses. Mitigation banking benefits wetland resources by providing advance replacement for permitted wetland losses; consolidating small projects into larger, better-designed and managed units; and encouraging integration of wetland mitigation projects with watershed planning. This last benefit is most helpful for airport projects, as wetland impacts mitigated outside of the separations identified in Sections 1-2 through 1-4 can still be located within the same watershed. Wetland mitigation banks meeting the separation criteria offer an ecologically sound

approach to mitigation in these situations. Airport operators should work with local watershed management agencies or organizations to develop mitigation banking for wetland impacts on airport property.

**2-5. DREDGE SPOIL CONTAINMENT AREAS.** The FAA recommends against locating dredge spoil containment areas (also known as Confined Disposal Facilities) within the separations identified in Sections 1-2 through 1-4 if the containment area or the spoils contain material that would attract hazardous wildlife.

**2-6. AGRICULTURAL ACTIVITIES.** Because most, if not all, agricultural crops can attract hazardous wildlife during some phase of production, the FAA recommends against the use of airport property for agricultural production, including hay crops, within the separations identified in Sections 1-2 through 1-4. . If the airport has no financial alternative to agricultural crops to produce income necessary to maintain the viability of the airport, then the airport shall follow the crop distance guidelines listed in the table titled "Minimum Distances between Certain Airport Features and Any On-Airport Agricultural Crops" found in AC 150/5300-13, *Airport Design*, Appendix 17. The cost of wildlife control and potential accidents should be weighed against the income produced by the on-airport crops when deciding whether to allow crops on the airport.

**Livestock production.** Confined livestock operations (i.e., feedlots, dairy operations, hog or chicken production facilities, or egg laying operations) often attract flocking birds, such as starlings, that pose a hazard to aviation. Therefore, The FAA recommends against such facilities within the separations identified in Sections 1-2 through 1-4. Any livestock operation within these separations should have a program developed to reduce the attractiveness of the site to species that are hazardous to aviation safety. Free-ranging livestock must not be grazed on airport property because the animals may wander onto the AOA. Furthermore, livestock feed, water, and manure may attract birds.

**Aquaculture.** Aquaculture activities (i.e. catfish or trout production) conducted outside of fully enclosed buildings are inherently attractive to a wide variety of birds. Existing aquaculture facilities/activities within the separations listed in Sections 1-2 through 1-4 must have a program developed to reduce the attractiveness of the sites to species that are hazardous to aviation safety. Airport operators should also oppose the establishment of new aquaculture facilities/activities within the separations listed in Sections 1-2 through 1-4.

**Alternative uses of agricultural land.** Some airports are surrounded by vast areas of farmed land within the distances specified in Sections 1-2 through 1-4. Seasonal uses of agricultural land for activities such as hunting can create a hazardous wildlife situation. In some areas, farmers will rent their land for hunting purposes. Rice farmers, for example, flood their land during waterfowl hunting season and obtain

additional revenue by renting out duck blinds. The duck hunters then use decoys and call in hundreds, if not thousands, of birds, creating a tremendous threat to aircraft safety. A wildlife damage management biologist should review, in coordination with local farmers and producers, these types of seasonal land uses and incorporate them into the WHMP.

## **2-7. GOLF COURSES, LANDSCAPING AND OTHER LAND-USE CONSIDERATIONS.**

**Golf courses.** The large grassy areas and open water found on most golf courses are attractive to hazardous wildlife, particularly Canada geese and some species of gulls. These species can pose a threat to aviation safety. The FAA recommends against construction of new golf courses within the separations identified in Sections 1-2 through 1-4. Existing golf courses located within these separations must develop a program to reduce the attractiveness of the sites to species that are hazardous to aviation safety. Airport operators should ensure these golf courses are monitored on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be immediately implemented.

**Landscaping and landscape maintenance.** Depending on its geographic location, landscaping can attract hazardous wildlife. The FAA recommends that airport operators approach landscaping with caution and confine it to airport areas not associated with aircraft movements. A wildlife damage management biologist should review all landscaping plans. Airport operators should also monitor all landscaped areas on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be immediately implemented.

Turf grass areas can be highly attractive to a variety of hazardous wildlife species. Research conducted by the USDA Wildlife Services' National Wildlife Research Center has shown that no one grass management regime will deter all species of hazardous wildlife in all situations. In cooperation with wildlife damage management biologist, airport operators should develop airport turf grass management plans on a prescription basis, depending on the airport's geographic locations and the type of hazardous wildlife likely to frequent the airport

Airport operators should ensure that plant varieties attractive to hazardous wildlife are not used on the airport. Disturbed areas or areas in need of re-vegetating should not be planted with seed mixtures containing millet or any other large-seed producing grass. For airport property already planted with seed mixtures containing millet, rye grass, or other large-seed producing grasses, the FAA recommends disking, plowing, or another suitable agricultural practice to prevent plant maturation and seed head production. Plantings should follow the specific recommendations for grass management and seed and plant selection made by the State University Cooperative Extension Service, the local office of Wildlife Services, or a qualified

wildlife damage management biologist. Airport operators should also consider developing and implementing a preferred/prohibited plant species list, reviewed by a wildlife damage management biologist, which has been designed for the geographic location to reduce the attractiveness to hazardous wildlife for landscaping airport property.

**Airports surrounded by wildlife habitat.** The FAA recommends that operators of airports surrounded by woodlands, water, or wetlands refer to Section 2.4 of this AC. Operators of such airports should provide for a Wildlife Hazard Assessment (WHA) conducted by a wildlife damage management biologist. This WHA is the first step in preparing a WHMP, where required.

**Other hazardous wildlife attractants.** Other specific land uses or activities (e.g., sport or commercial fishing, shellfish harvesting, etc.), perhaps unique to certain regions of the country, have the potential to attract hazardous wildlife. Regardless of the source of the attraction, when hazardous wildlife is noted on a public-use airport, airport operators must take prompt remedial action(s) to protect aviation safety.

**2-8. SYNERGISTIC EFFECTS OF SURROUNDING LAND USES.** There may be circumstances where two (or more) different land uses that would not, by themselves, be considered hazardous wildlife attractants or that are located outside of the separations identified in Sections 1-2 through 1-4 that are in such an alignment with the airport as to create a wildlife corridor directly through the airport and/or surrounding airspace. An example of this situation may involve a lake located outside of the separation criteria on the east side of an airport and a large hayfield on the west side of an airport, land uses that together could create a flyway for Canada geese directly across the airspace of the airport. There are numerous examples of such situations; therefore, airport operators and the wildlife damage management biologist must consider the entire surrounding landscape and community when developing the WHMP.

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### SECTION 3.

### PROCEDURES FOR WILDLIFE HAZARD MANAGEMENT BY OPERATORS OF PUBLIC-USE AIRPORTS.

**3.1. INTRODUCTION.** In recognition of the increased risk of serious aircraft damage or the loss of human life that can result from a wildlife strike, the FAA may require the development of a Wildlife Hazard Management Plan (WHMP) when specific triggering events occur on or near the airport. Part 139.337 discusses the specific events that trigger a Wildlife Hazard Assessment (WHA) and the specific issues that a WHMP must address for FAA approval and inclusion in an Airport Certification Manual.

**3.2. COORDINATION WITH USDA WILDLIFE SERVICES OR OTHER QUALIFIED WILDLIFE DAMAGE MANAGEMENT BIOLOGISTS.** The FAA will use the Wildlife Hazard Assessment (WHA) conducted in accordance with Part 139 to determine if the airport needs a WHMP. Therefore, persons having the education, training, and expertise necessary to assess wildlife hazards must conduct the WHA. The airport operator may look to Wildlife Services or to qualified private consultants to conduct the WHA. When the services of a wildlife damage management biologist are required, the FAA recommends that land-use developers or airport operators contact a consultant specializing in wildlife damage management or the appropriate state director of Wildlife Services.

**NOTE:** Telephone numbers for the respective USDA Wildlife Services state offices can be obtained by contacting USDA Wildlife Services Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD, 20737-1234, Telephone (301) 734-7921, Fax (301) 734-5157 (<http://www.aphis.usda.gov/ws/>).

**3-3. WILDLIFE HAZARD MANAGEMENT AT AIRPORTS: A MANUAL FOR AIRPORT PERSONNEL.** This manual, prepared by FAA and USDA Wildlife Services staff, contains a compilation of information to assist airport personnel in the development, implementation, and evaluation of WHMPs at airports. The manual includes specific information on the nature of wildlife strikes, legal authority, regulations, wildlife management techniques, WHAs, WHMPs, and sources of help and information. The manual is available in three languages: English, Spanish, and French. It can be viewed and downloaded free of charge from the FAA's wildlife hazard mitigation web site: <http://wildlife-mitigation.tc.FAA.gov/>. This manual only provides a starting point for addressing wildlife hazard issues at airports. Hazardous wildlife management is a complex discipline and conditions vary widely across the United States. Therefore, qualified wildlife damage management biologists must direct the development of a WHMP and the implementation of management actions by airport personnel.

There are many other resources complementary to this manual for use in developing and implementing WHMPs. Several are listed in the manual's bibliography.

**3-4. WILDLIFE HAZARD ASSESSMENTS, TITLE 14, CODE OF FEDERAL REGULATIONS, PART 139.** Part 139.337(b) requires airport operators to conduct a

Wildlife Hazard Assessment (WHA) when certain events occur on or near the airport. Part 139.337 (c) provides specific guidance as to what facts must be addressed in a WHA.

**3-5. WILDLIFE HAZARD MANAGEMENT PLAN (WHMP).** The FAA will consider the results of the WHA, along with the aeronautical activity at the airport and the views of the airport operator and airport users, in determining whether a formal WHMP is needed, in accordance with Part 139.337. If the FAA determines that a WHMP is needed, the airport operator must formulate and implement a WHMP, using the WHA as the basis for the plan.

The goal of an airport's Wildlife Hazard Management Plan is to minimize the risk to aviation safety, airport structures or equipment, or human health posed by populations of hazardous wildlife on and around the airport.

The WHMP must identify hazardous wildlife attractants on or near the airport and the appropriate wildlife damage management techniques to minimize the wildlife hazard. It must also prioritize the management measures.

**3-6. LOCAL COORDINATION.** The establishment of a Wildlife Hazards Working Group (WHWG) will facilitate the communication, cooperation, and coordination of the airport and its surrounding community necessary to ensure the effectiveness of the WHMP. The cooperation of the airport community is also necessary when new projects are considered. Whether on or off the airport, the input from all involved parties must be considered when a potentially hazardous wildlife attractant is being proposed. Airport operators should also incorporate public education activities with the local coordination efforts because some activities in the vicinity of your airport, while harmless under normal leisure conditions, can attract wildlife and present a danger to aircraft. For example, if public trails are planned near wetlands or in parks adjoining airport property, the public should know that feeding birds and other wildlife in the area may pose a risk to aircraft.

Airport operators should work with local and regional planning and zoning boards so as to be aware of proposed land-use changes, or modification of existing land uses, that could create hazardous wildlife attractants within the separations identified in Sections 1-2 through 1-4. Pay particular attention to proposed land uses involving creation or expansion of waste water treatment facilities, development of wetland mitigation sites, or development or expansion of dredge spoil containment areas. At the very least, airport operators must ensure they are on the notification list of the local planning board or equivalent review entity for all communities located within 5 miles of the airport, so they will receive notification of any proposed project and have the opportunity to review it for attractiveness to hazardous wildlife.

**3-7 COORDINATION/NOTIFICATION OF AIRMEN OF WILDLIFE HAZARDS.** If an existing land-use practice creates a wildlife hazard and the land-use practice or wildlife

hazard cannot be immediately eliminated, airport operators must issue a Notice to Airmen (NOTAM) and encourage the land-owner or manager to take steps to control the wildlife hazard and minimize further attraction.

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## **SECTION 4.**

### **FAA NOTIFICATION AND REVIEW OF PROPOSED LAND-USE PRACTICE CHANGES IN THE VICINITY OF PUBLIC-USE AIRPORTS**

#### **4-1. FAA REVIEW OF PROPOSED LAND-USE PRACTICE CHANGES IN THE VICINITY OF PUBLIC-USE AIRPORTS.**

The FAA discourages the development of waste disposal and other facilities, discussed in Section 2, located within the 5,000/10,000-foot criteria specified in Sections 1-2 through 1-4.

For projects that are located outside the 5,000/10,000-foot criteria but within 5 statute miles of the airport's AOA, the FAA may review development plans, proposed land-use changes, operational changes, or wetland mitigation plans to determine if such changes present potential wildlife hazards to aircraft operations. The FAA considers sensitive airport areas as those that lie under or next to approach or departure airspace. This brief examination should indicate if further investigation is warranted.

Where a wildlife damage management biologist has conducted a further study to evaluate a site's compatibility with airport operations, the FAA may use the study results to make a determination.

#### **4-2. WASTE MANAGEMENT FACILITIES.**

**Notification of new/expanded project proposal.** Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) limits the construction or establishment of new MSWLF within 6 statute miles of certain public-use airports, when both the airport and the landfill meet very specific conditions. See Section 2-2 of this AC and AC 150/5200-34 for a more detailed discussion of these restrictions.

The Environmental Protection Agency (EPA) requires any MSWLF operator proposing a new or expanded waste disposal operation within 5 statute miles of a runway end to notify the appropriate FAA Regional Airports Division Office and the airport operator of the proposal (40 CFR 258, *Criteria for Municipal Solid Waste Landfills*, Section 258.10, *Airport Safety*). The EPA also requires owners or



operators of new MSWLF units, or lateral expansions of existing MSWLF units, that are located within 10,000 feet of any airport runway end used by turbojet aircraft, or within 5,000 feet of any airport runway end used only by piston-type aircraft, to demonstrate successfully that such units are not hazards to aircraft. (See 4-2.b below.)

When new or expanded MSWLF are being proposed near airports, MSWLF operators must notify the airport operator and the FAA of the proposal as early as possible pursuant to 40 CFR 258.

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**Waste handling facilities within separations identified in Sections 1-2 through 1-4.** To claim successfully that a waste-handling facility sited within the separations identified in Sections 1-2 through 1-4 does not attract hazardous wildlife and does not threaten aviation, the developer must establish convincingly that the facility will not handle putrescible material other than that as outlined in 2-2.d. The FAA strongly recommends against any facility other than that as outlined in 2-2.d (enclosed transfer stations). The FAA will use this information to determine if the facility will be a hazard to aviation.

**Putrescible-Waste Facilities.** In their effort to satisfy the EPA requirement, some putrescible-waste facility proponents may offer to undertake experimental measures to demonstrate that their proposed facility will not be a hazard to aircraft. To date, no such facility has been able to demonstrate an ability to reduce and sustain hazardous wildlife to levels that existed before the putrescible-waste landfill began operating. For this reason, demonstrations of experimental wildlife control measures may not be conducted within the separation identified in Sections 1-2 through 1-4.

**4-3. OTHER LAND-USE PRACTICE CHANGES.** As a matter of policy, the FAA encourages operators of public-use airports who become aware of proposed land use practice changes that may attract hazardous wildlife within 5 statute miles of their airports to promptly notify the FAA. The FAA also encourages proponents of such land use changes to notify the FAA as early in the planning process as possible. Advanced notice affords the FAA an opportunity (1) to evaluate the effect of a particular land-use change on aviation safety and (2) to support efforts by the airport sponsor to restrict the use of land next to or near the airport to uses that are compatible with the airport.

The airport operator, project proponent, or land-use operator may use FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, or other suitable documents similar to FAA Form 7460-1 to notify the appropriate FAA Regional Airports Division Office. Project proponents can contact the appropriate FAA Regional Airports Division Office for assistance with the notification process.

It is helpful if the notification includes a 15-minute quadrangle map of the area identifying the location of the proposed activity. The land-use operator or project proponent should also forward specific details of the proposed land-use change or operational change or expansion. In the case of solid waste landfills, the information should include the type of waste to be handled, how the waste will be processed, and final disposal methods.

**Airports that have received Federal grant-in-aid assistance.** Airports that have received Federal grant-in-aid assistance are required by their grant assurances to take appropriate actions to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations. The FAA recommends that airport operators to the extent practicable oppose off-airport land-use changes or practices within the separations identified in Sections 1-2 through 1-4 that may attract hazardous wildlife. Failure to do so may lead to noncompliance with applicable grant assurances. The FAA will not approve the placement of airport development projects pertaining to aircraft movement in the vicinity of hazardous wildlife attractants without appropriate mitigating measures. Increasing the intensity of wildlife control efforts is not a substitute for eliminating or reducing a proposed wildlife hazard. Airport operators should identify hazardous wildlife attractants and any associated wildlife hazards during any planning process for new airport development projects.

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## **APPENDIX 1. DEFINITIONS OF TERMS USED IN THIS ADVISORY CIRCULAR.**

**1. GENERAL.** This appendix provides definitions of terms used throughout this AC.

**Air operations area.** Any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. An air operations area includes such paved areas or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiways, or apron.

**Airport operator.** The operator (private or public) or sponsor of a public-use airport.

**Approach or departure airspace.** The airspace, within 5 statute miles of an airport, through which aircraft move during landing or takeoff.

**Bird balls.** High-density plastic floating balls that can be used to cover ponds and prevent birds from using the sites.

**Certificate holder.** The holder of an Airport Operating Certificate issued under Title 14, Code of Federal Regulations, Part 139.

**Construct a new MSWLF.** To begin to excavate, grade land, or raise structures to prepare a municipal solid waste landfill as permitted by the appropriate regulatory or permitting agency.

**Detention ponds.** Storm water management ponds that hold storm water for short periods of time, a few hours to a few days.

**Establish a new MSWLF.** When the first load of putrescible waste is received on-site for placement in a prepared municipal solid waste landfill.

**Fly ash.** The fine, sand-like residue resulting from the complete incineration of an organic fuel source. Fly ash typically results from the combustion of coal or waste used to operate a power generating plant.

**General aviation aircraft.** Any civil aviation aircraft not operating under 14 CFR Part 119, Certification: Air Carriers and Commercial Operators.

**Hazardous wildlife.** Species of wildlife (birds, mammals, reptiles), including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard

**Municipal Solid Waste Landfill (MSWLF).** A publicly or privately owned discrete area of land or an excavation that receives household waste and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 CFR § 257.2. An MSWLF may receive other types wastes, such as commercial solid waste, non-hazardous sludge, small-quantity generator waste, and industrial solid waste, as defined under 40 CFR § 258.2. An MSWLF can consist of either a stand alone unit or several cells that receive household waste.

**New MSWLF.** A municipal solid waste landfill that was established or constructed after April 5, 2001.

**Piston-powered aircraft.** Fixed-wing aircraft powered by piston engines.

**Piston-use airport.** Any airport that does not sell Jet-A fuel for fixed-wing turbine-powered aircraft, and primarily serves fixed-wing, piston-powered aircraft. Incidental use of the airport by turbine-powered, fixed-wing aircraft would not affect this designation. However, such aircraft should not be based at the airport.

**Public agency.** A State or political subdivision of a State, a tax-supported organization, or an Indian tribe or pueblo (49 U.S.C. § 47102(19)).

**Public airport.** An airport used or intended to be used for public purposes that is under the control of a public agency; and of which the area used or intended to be used for landing, taking off, or surface maneuvering of aircraft is publicly owned (49 U.S.C. § 47102(20)).

**Public-use airport.** An airport used or intended to be used for public purposes, and of which the area used or intended to be used for landing, taking off, or surface maneuvering of aircraft may be under the control of a public agency or privately owned and used for public purposes (49 U.S.C. § 47102(21)).

**Putrescible waste.** Solid waste that contains organic matter capable of being decomposed by micro-organisms and of such a character and proportion as to be capable of attracting or providing food for birds (40 CFR §257.3-8).

**Putrescible-waste disposal operation.** Landfills, garbage dumps, underwater waste discharges, or similar facilities where activities include processing, burying, storing, or otherwise disposing of putrescible material, trash, and refuse.

**Retention ponds.** Storm water management ponds that hold water for several months.

**Runway protection zone (RPZ).** An area off the runway end to enhance the

protection of people and property on the ground (see AC 150/5300-13). The dimensions of this zone vary with the airport design, aircraft, type of operation, and visibility minimum.

**Scheduled air carrier operation.** Any common carriage passenger-carrying operation for compensation or hire conducted by an air carrier or commercial operator for which the air carrier, commercial operator, or their representative offers in advance the departure location, departure time, and arrival location. It does not include any operation that is conducted as a supplemental operation under 14 CFR Part 119 or as a public charter operation under 14 CFR Part 380 (14 CFR § 119.3).

**Sewage sludge.** Any solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works. (40 CFR 257.2)

**Sludge.** Any solid, semi-solid, or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect. (40 CFR 257.2)

**Solid waste.** Any garbage, refuse, sludge, from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded material, including, solid liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by product material as defined by the Atomic Energy Act of 1954, as amended, (68 Stat. 923). (40 CFR 257.2)

**Turbine-powered aircraft.** Aircraft powered by turbine engines including turbojets and turboprops but excluding turbo-shaft rotary-wing aircraft.

**Turbine-use airport.** Any airport that sells Jet-A fuel for fixed-wing turbine-powered aircraft.

**Wastewater treatment facility.** Any devices and/or systems used to store, treat, recycle, or reclaim municipal sewage or liquid industrial wastes, including Publicly Owned Treatment Works (POTW), as defined by Section 212 of the Federal Water Pollution Control Act (P.L. 92-500) as amended by the Clean Water Act of 1977 (P.L. 95-576) and the Water Quality Act of 1987 (P.L. 100-4). This definition includes any pretreatment involving the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. (See 40 CFR Section 403.3 (q), (r), & (s)).

**Wildlife.** Any wild animal, including without limitation any wild mammal, bird, reptile, fish, amphibian, mollusk, crustacean, arthropod, coelenterate, or other invertebrate, including any part, product, egg, or offspring thereof (50 CFR 10.12, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*). As used in this AC, wildlife includes feral animals and domestic animals out of the control of their owners (14 CFR Part 139, Certification of Airports).

**Wildlife attractants.** Any human-made structure, land-use practice, or human-made or natural geographic feature that can attract or sustain hazardous wildlife within the landing or departure airspace or the airport's AOA. These attractants can include architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquaculture activities, surface mining, or wetlands.

**Wildlife hazard.** A potential for a damaging aircraft collision with wildlife on or near an airport.

**Wildlife strike.** A wildlife strike is deemed to have occurred when:

A pilot reports striking 1 or more birds or other wildlife;

Aircraft maintenance personnel identify aircraft damage as having been caused by a wildlife strike;

Personnel on the ground report seeing an aircraft strike 1 or more birds or other wildlife;

Bird or other wildlife remains, whether in whole or in part, are found within 200 feet of a runway centerline, unless another reason for the animal's

death is identified;

The animal's presence on the airport had a significant negative effect on a flight (i.e., aborted takeoff, aborted landing, high-speed emergency stop, aircraft left pavement area to avoid collision with animal) (Transport Canada, Airports Group, *Wildlife Control Procedures Manual*, Technical Publication 11500E, 1994).

## **2. RESERVED.**



## MANASSAS REGIONAL AIRPORT COMMISSION

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**MEETING DATE:** April 21, 2022

**TIME ESTIMATE:** 10 Minutes

**AGENDA TITLE:** Approve the updated Airport Wildlife Plan

**RECOMMENDATION:** Staff recommends approval of the Airport Wildlife Plan.

**MOTION:** **I move to approve the Airport Wildlife Plan.**

**DATE LAST CONSIDERED BY COMMISSION:** March 17, 2022

**SUMMARY AND/OR COMMENTS:** The Manassas Regional Airport encompasses 889 acres and are an attractant for many different types of wildlife. The objective of the Wildlife Hazard Management Plan is to mitigate wildlife populations on and around the airport that pose a threat to the safety of aviation, damage to structures/equipment, and human health.

This plan has been reviewed by the City Attorney and has been previously reviewed by the FAA

**FISCAL IMPACT:** N/A

**STAFF CONTACT:** Jolene Berry 703-257-8279

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Airport Director