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Avian Hazards at JAX

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Avian Hazards at JAX





Avian Hazards at JAX





Step 1: System States

- Movement Areas
- Within the AOA
- Airport Property outside the AOA
- Off-Airport Property



Step 2: Hazards

- Geese
- Hogs
- Aerial Foragers
- Blackbirds
- Cattle Egrets
- Crows
- Coyotes
- Deer
- Dogs

- Doves
- Turkeys
- Gulls
- Mesomammals
- Songbirds
- Wading Birds
- Raptors
- Shorebirds
- Vultures



Example: Canada Geese

- Step 1: Identify System States
 - AOA
 - Airport property outside AOA
 - Off-airport property
- Step 2: Identify Hazards
 - Canada goose/geese struck by aircraft





Step 3: Identify your controls

- Engineering
 - Habitat reduction (no standing water)
 - Aquatic vegetation removal
 - Pyrotechnics/lethal control
- Warnings
 - Bird activity on ATIS
 - NOTAMS
- Administrative Procedures/Training
 - Daily wildlife inspections & reports
 - Annual wildlife hazard management training
 - Zoning recommendations for adjacent properties





Step 4: Determine Risk Factors

- Using JAA's Risk Matrix:
 - Residual Severity Catastrophic (1)
 - Residual Likelihood Extremely Remote (D)
 - Residual Risk Total 1D





Step 5: Corrective Action and Implementation

- Within AOA: Eliminate/reduce open water sources within the AOA (Planning Dept & OPS)
- Airport property outside AOA:
 Eliminate/reduce open water sources/nesting habitat (Planning Dept. & OPS)
- Off-airport property: Public outreach & education; attend zoning meetings (Planning Dept.)



- Critical Control: Revised WHMP approved July 2011. Eliminating/reducing all standing water from AOA is a goal of WHMP
- Critical Control Owner: Planning Environmental Coordinator
- Hierarchy/Defense in Depth Met?Yes



Final Product

Document Date: Ma	rch 11, 2011											Ш									
Step 1: Identify your System State/ Tasks / Activities		Step 2: Identifyyour Nazards and Threats				rels	Controls: (place Less Effect Controls	Refer to Part 139 if Applicable an "X" if a control exists.)	Step 4:	Step 4: Determine Risk Factors and Evaluate Risk			vate Risk	Step 5: Corrective Action		Step 6 f					
Department	System State/ Tasks/Activities	Mazard (What could go wrong)	Cause	Effect i Scenario / outcome (Worst Case(S))	Controls: Elimination/Substitution	Controls: Engineering	Controls: dministrative/Procedures/tra ining	Centrols: Personal Protective Equipment (PPE) Description of Controls	Residual Severity		Residual Litelihood		Residual Risk Total	Corrective Actions.	Corrective Action (CA) Assigned to (by Department)	Critical Centrol (Y Il Residual Severity is Catastrophic or Serious, or il Residual Risk is High)	Describe the Critical Control? (add to impection, resting or abservation)	Critical Control Owner (by Title)	Control Category (based on Corrective Action)	HierarchylDefense in Depth Met (If No, then add additional controls via CAs is Step 5)	countries was seen as a
sperations, JAAPD, Larving, Wildlife constracts, Facilities, AVG, USDA	AOA	Waterford (Goese) Fight hazard	wedlands vegetation, grass and open water	mass casualites, aircraft damage, damage reputation, egerations interruption		x 2	x	authanasia, pyrotechnics, daily and hourly inspections, habitat modification, NOTAVIS, feecing, rest and egg destruction, shooting	Catastrophic	1	Estremely Remote	D	ui.	Assess wettands in the AOA for altraheation potential and modification	Planning/OPS	٧	Currently the widdlife plan is under revision. Milipation strategy will be based on WHA. Target date is 8/2011.	Planning Evironmental Coordinator	Pending outcome of VINA	Y	
gerations, JAAPD, Sarring, Wildlife cossittants, Facilities ANO, USDA	Property octside AOA	Waterfunt (Goese) ffghi hazard	wetlands vegetation, grass and open water	mass casualites, aircraft damage, damage reputation, operations interruption		x 3	x	euthanasia, daily and hourly inspections, habitat modification, NOTANS, nest and egg desiruction, shooting	Catastrophic	1	Extremely Remote	D		Assess habitat on property for elimination potential and modification	Flanning/OPS	Y	Currently the wildlife plan is under revision. Mitigation strategy will be based on ViHA. Target date is 6/2011.	Planning Evinormental Coordinate	Pending outcome of WHA		
Operations, JAAPD, Havning, Wollife Consultants, Facilities, FANG, USDA	Outside property	Waterfoot (Goese) fight hazard	wetlands vegelation, grass and open water	mass casualties, aircraft damage, damage reputation, operations interruption		x 3	x	euthanasia, zoning recommendations	Catastrophic	,	Extremely improbable			Public outreach and education	Planning P90	Y	Person to be involved with community as far as off preperty land use and zerling.	Engineering Transling			
Operations, JAAPD, Mareing, Wildlife Consultants, Facilities, FANO, USDA	Hovement areas	Mag Strike	Breaches in perimeter fence, wetlands	Alteratt damage and loss of tife, injury		х э	x	shooting, trapping, daily fence inspection, game cameras	Hazardous	2	Remote	С		Oury the fence, fix gaps in fence & fence gates, assess habitat	Facilities of Planning	*	Ops assesses habitat daily (fir. Manager Operations). Burled Fance is a finance capital project(s) (Emitoensental Flaming Coordinately, Work order system used to eccelinate sepair and track daily all completion under 139 category (Director of Facilities)	Br. Manager of Operations, Environmental Stanning Coordinator, Director of Facilities			
Operations, Planning, Vidifie Consultants, actities	дод	Astist Foregors	open space for hawking insects, nesting opportunities	aircraft damage, damage reputation, operations interruption		x	x	pyrotechnics, vegetation management	Major	3	Remote	с	×	spraying insecticities over open grass fields, destroying nestategas whenever found, sectuding birds from mesting in facilities (likeping doors closed, eliminating gaps, etc.)	Facilities JAA PD		Facilities contracts posticide spraying services annually as needed. Facilities corrects access points for birds to rest in buildings.	Director of Facilities			
Operations, Planning, Niedlife Consultants, Facilities	AOA	Blackbirds	wetlands vegetation, vegetation in ditches	mass casualites, aircraft damage, damage reputation, operations interruption		x 3	x	occasional wetland vegetation removal (cattalls, disches, ponds, etc.)	Hazardous	2	Extremely Remote	D	20	erore frequent vegetation removal on ADA; applying herbicide to slaw vegetation re-growth	Facilities		Airfield grass and attrachtants are cut on a predetermined schedule	Director of Facilities			-
sperations, Planning. Vidife Consultants, acilities	Property outside AOA	Bfackbirds	wetlands vegetation, vegetation in diches	mass casualites, aircraft damage, damage reputation, operations interruption		x ,	×	occasional wettand vegetation removal (cattalls, disches, ponds, etc.)	Hazardous	2	Extremely Improbable	ε		more frequent vegetation removal on property; applying herbicide to slow vegetation re-growth	Facilities						
perations, Flamming. AAPO, Wildise consultants, Facilities	АОА	Cattle Egrets	mowing, abundance of insects, open grass fields	aircraft damage, damage reputation, operation interruption		x 1	×	pyrolectrics, vegetation management	Hazardous	2	Estremely Remote	D	20	maintain an interemediate grass height of 6-12 inches; now fields only at right or in early morning tate evening hours, spray insections during spring/summer; reinferce pyrotechnics with occasional lethal control	JAA PO/ Facilities		Airfield grass and attrachtants are out on an established schedule	Director of Facilities			
sperations, Flanning, Vidific Consultants, actities	АОА	Crows	water source, human waste, small mammals, bird's nesting, insects	alreraft damage, damage reputation, operations interruption		x	x	pyrotechnics	Maçor	3	Extremely Improbable			occasional reinforcement with lethal control (shooting); keep all human waste (trash) contained	JAA POY Ogal Facilities						
Operations, Planning. Vidite Consultants, 'acittles	Property outside AOA	Crows	water source, burnan waste, small mammals, bird's nesting, insects	alveraft damage, damage reputation, operations interruption		x	×	Vegetation management	Major	3	Extremely Improbable	Ε		occasional reinforcement with inthal control (shooting); keep all human waste (trash) contained	JAA PCV Opal Facilities						
Operations, Planning, JAARO, Widdle Consultants, Factities	Movement areas	Coyotes	breaches in perimeter ferrer, mesomannals (food source)	mass casualites, elected demage, demage regulation, egetations bistroyption		x 1	x	shooting, daily funce impostion, game cameras	Hazardous	2	Remote	c	е	Bury the from, fix gaps in from A thore gates, eliminate anual assemble from AOA	Facilities of Plannings' Opes' JAB, PO	*	Ops a serses habited daily (fic. Manager Operations). Buried fence is a ficture capital project(s) (Emisconnectal Platering Decedinates, Work ender system used to secondariate regalar and track daily until completion under 139 category (Director of Facilities).	Er. Manager of Operation. Environmental Planning Coordinates, Director of Facilities			
Operations, Flanning, JAAPD, Windite Consultants, Facilities	Hovement areas	Door	Breaches in perimeter ferne, wooded are as inside perimeter fence	mass assualtes, abreath damage regulation, operations interruption		x 1	x	shooting, pyrotechrics, daily ferce inspection, game cameras	Catastrophic	ı	Remote	c		Make suce force is secure and at an appropriate height, eliminate all wooded areas institutions the perimeter force	Facilities of Flanning Ope.	,	Ops assesses habitat daily (Sr. Manager Operation). Work ender system used to coordinate regain and track daily until congletion under 139 calegory (Director of Facilities)	Sr. Manager of Operations. Environmental Hanning Coordinator, Director of Facilities			_
Operations, Flanning, JAAPD, Widdle Consultants, Facilities	Movementareas	Dog	breathes in perinetial fence, wooded areas inside perimeter fence	mass casualitas, aircraft damage, damage regulation, eperations interruption		×	x	scare tastics, chasing, fence tropections	Hazardous	2	Remote	c		Make sure frome is secure and all an aggregate height, eliminate all wooded areas husbishing the perimeter frome	Facilities of Flavorings Ope		Ops assesses habitat daily (Re. Manager Operations). Burled fence is a filture capital project(s) (Emiricomanda Plazering Coordinates). Work coder system used to coordinate regain and trask daily until completion under 139 category (Director of Facilities).	Br. Manager of Operations. Environmental Blanking Coordinates, Director of Facilities			



Final Product

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Department	System State/ Tasks/Activities	Hezard (What could go wrong)	Cause	Effect (Senanio / outcome (Veret Cae(b))	Controls: Elimination Substitution	Controls: Engineering	Controls: Warnings	dministrative Procedures. It ining ontrols: Personal Protectiv	Equipment (PPE)	Residual Severity		Residual Likelihood		Residual Risk Total	Corrective Actions	Corrective Action (CA) Assigned to (by Department)	Critical Control (Y. If Residual Soverity is antistrophic or Sorious, or Residual Risk is High)	vacrite the Critical Centrol add to inspection, testing o deternation)	Critical Centrel Owner (by Tite)	Control Category (based on Corrective Action)	Herarchy/Defense in Depth Ret (If No, then add additional controls via CAs is Step 5)	Diet Bedierfor Terres
Operations, Planning. Wodifie Consultants, Facilities	AGA	Doves/Pigeons	nesting oppourturities (buildings/structures), bare ground, available grit, short grass	aleraft damage, damage reputation, operation interruption	is	×		x	chasting	Major	3	Remote	c	1C	Remove all nestshesting materialsleggs from Galities & structures; malerials intermediate grass heligit of 6-12 inches; eliminate bare areas and loose gravel	Facilities		Currently the widdlife plan is under revision, Milipation strategy will be based on WINA. Target date is 6/2011.	Planning Evironmental Coordintor	Pending outcome of WHA		Ī
Operations, Planning, JAAPD, Wildlife Consultants, Facilities	Movement areas	Turkeys	bresches in perimeter fance, wooded areas Inside perimeter fence	mass casualites, alecreft damage, damage regulation, eperations interruption		x		x	chasing, pyrotechnics, sheeting	Mazzedous	2	Remote	c	16	Make sure fonce and gales are secure (no breaches or gaps), eliminate all wooded areas instabilising the perimeter tinne	Facilities! Planning! Opt	Y	Ops assesses habitat daily (Sr. Manager Operations). Werk ender system used to coordinate regale and track daily until completion under 139 category (Director of Facilities)	Planning Evironmental Coordinater	Proding outcome of VMA		,
Operations, Planning, JAAPD, Wildlife Consultants, Facilities	AOA	Guits	low areas of standing water, open areas for roosting	mass casualites, alcoraft damage, damage regulation, operations interruption		x	x	x	chasing, shooting, pyretechnics	Hazardous	2	Ramote	c		obtain pointits to fill areas that collect water during heavy rain	Planning	ν.	Currently the wildlife plan is unde revision. Mitigation strategy will be based on Willia. Target date is 6/2011.	Planning Evironmental Coordintor	Pending outcome of WHA		,
Operations, Planning, JAAPO, Wildere, Gonsultants, Facilities	AOA	Mesémannahi: raccons, skurks, armadilos, feral cals, for, opessums	breaches in perimeter fecce, available water sources, human waste, senal marronis, call food insets, dense vegetation-weedlands lassife the perimeter fence	airerath damage, damage reputation, operation interruption	16	×		x	chasing, shooting, gyrotechniss, trapping, relocating	Маўсе	3	Probable	8		eliminate fince breaches, bury porimeter fince, kee all bush excluding, keep doors dorsed on all the wooded areas from hadde the porimeter fince	Facilities/Planning/Ops	*	Ops assesses habitet delty (fir. Manager Operations). Work nodes system useful to coordinate regule and track delty until completion under 135 calegory (Director of Facilities)	Sr. Manager of Operations. Emircomental Planning Coordinator, Director of Pacificies			٧
Operations, Planning, Wildlife Consultants, Facilities	АОА	small, perthing songbirds: robins, meadouturks, mockingbirds, sparrows, sto	perching & nesting opportunities; weedy vegetation that produces seeds, fruits, muts, & berries; short grass	aircraft damage, damage reputation, operation interruption	is .	x		x	vegetation maintenance, pyrebectrics	Major	3	Remote	c		remove unoscessary perching structures from nitridis, hatall perching deliterate on usuanidable structures (e.g., numary stayes, etc., emotor all food nests, nesting materials, all-eggs; leap facilities secured, materials in a bitemediate years insight effect to bother, materials a dross emococulture of grass; materials and produces of grass; materials and materials are seen nests, berties, and faults	Facilities Planning Ops JAA PD		Ops assesses habitat dazy (br. Manajer Operations). Work order system used to econdinate requir and track dazy until sompletion under 13 category (Director of Facilities)	St. Manager of Operations. Environmental Planning Coordinator, Director of Facilities			,
Operations, JAAPD, Planning, Wildlife Gensultants, Facilities	AOA	Warding binds: Egrets, storks Bis, horons	Standing water, vegetation surrounding standing water, wetlands	mass casualites, alteraft damage, damage regulation, operations interruption		x		x	pyrotechnics, eccasional wetland vegetation removal	Hazardous	2	Remote	c		regularly remove all welland vegetation from in 8, around standing water, apply berbicide to related vegetation re-growing place neiting over areas of a standing water, apply non-with Undersida is water that regel blods, obtain permit to fill wellands, use occasional inthal control to reinforce gyr oberinics	Facilities/ Planning! JAA PD	Y	Currently the wildside plan is underevision. Midgation strategy will be based on WMA. Target date is \$2215.	Planning Evironmental Coordintor	Pending outcome of VHA		,
Operations, JAAPD, Planning, Wildlife Consultants, Facilities	AOA	Raplors: eagles, hawks, & Restreis	small mammals, perching & nesting opportunities	mass casualites, aircraft damage, damage reputation, operations interruption		x		×	pyrotechnics	Hazardous	2	Remote	c		Keep perimeter fance free of vogetation, eliminate woodlands inside perimeter fance, install perching detterents on unarealishte structures, reswer unnecessary perching structures, reswer all brush if shrubs timide perimeter fance.	Factions	Y	Currently the wildlife plan is under revision. Mitigation strategy will be based on WMA. Target date is 6/2011.	Playeling Evirormental Coordinate	Pending outcome of VMA		
Operations, JAAPO, Planning, Widdle Consultants, Facilities	JAA property outside AOA	Raptors: eagles, hanks, & kestrals	small marnmals, perching & nesting apportunities	mass cassulites, alterall damage, damage regulation, operations interruption		x		×	Vegetation management	Hazardous	2	Extremely Remote	D		install perching deliterants on unavoidable structure, restore all suray (deal thres) from wooded area, restore found reptor notes (secopt Badd Eagle), restore found reptor notes (secopt Badd Eagle), restore surveyes any perching structure, restore unkept bouch & structure.	Factions		Ops assesses habitat daily (lie. Manager Operations). Wark ende system used to econfinate require and track daily until ecompletion under 139 calegory (threater of Facilities)	Sr. Manager of Operations. Environmental Planning Coordinator. Director of Facilities			
Operations, Planning. Widdlife Consultants, Facilities	AOA	Shorebirds: players & killdear	areas of bare ground, lon areas of temporary standing water, nesting opportunities	alteraft damage, damage reputation, operation between the		x		x	chasing, pyrotechnics	Minor		Probable	8	46	Eliminate hare areas on AGS, remove any found osats, obtain permits to fill four areas that collect standing water during heavy rain evoids.	Facilities Planning		Ope assesses habitet daily (fir. Manager Operations). Work code system used to coordinate regula- and track daily until completion under 136 category (Director of Facilities)	Sr. Manager of Operations, Environmental Planning Goordinator, Director of Facilities			
Operations, JAAPO, Planning, Wildlife Consultants, Facilities	AOA	Vultures	thermals, carrion	mass casualites, alreraft damage, damage regulation, operations interruption		x	x	x	pyrotechnics	Catastrophic	1	Ramote	c		esinforce pyrotechnics with lethul cootrol; hang a dred sufture etting upside down from a High point or the AOA; secrose and bury all carrion increadabily	Facilities/ JAA PDV Ops	Y	Currently the wildlife plan is under revision. Mitigation strategy will be based on WMA. Target date is \$2211.	Planning Evironmental Coordinates	Panding outcome of WHA		,
Operations, JAAPD, Planning, White Consultants, Facilities	JAA property outside AOA	Vultures	therenals, carrion	mass casualites, aircraft damage, damage reputation, egerations biterruption		x	x	x	Vegetation management	Hazardous	2	Extremely Remote	0	480	reinforce pyroteeknics with lethal control; remove and bury all carrion invocediately	Facilities JAA PDI Ops		Currently the wildlife plan is under revision. Mitigation strategy will be based on WINA. Target date is \$72011.	Planning Evironmental Coordinate			

Professional Section (Control of the Control of the



Questions?

