Managing the Bird/Wildlife Strike Risk

with State Listed Threatened & Endangered Bird Species

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BIRD/WILDLIFE AIRCRAFT STRIKE HAZARD (BASH) PLANS
Bird Hazard Working Group

Wing Vice Commander
Safety
Staff Judge Advocate
Public Affairs

Operations Group
Flyers
SOF/AOM/ATC

Maintenance Group
Maintainers (Vital role with strike remains)

Other Stakeholders
USDA Biologists
Massachusetts Endangered Species Biologist
Land Fill Operators

Mission Support Group
Environmental Engineering/Real Property Managers
HABITAT MANAGEMENT

CRUX OF ALL BASH PROGRAMS
TURF MANAGEMENT

See AFI 91-212

7-14 Inches - AF Mandate
6-12 Inches - FAA Recommendation
PROPER TURF MANAGEMENT:

1. Grass indigestible to majority of wildlife species
2. Intermediate height disrupts visual interflock communication
3. Limits predator detection
4. Obscures invertebrate food sources
5. Impedes ease of movement
6. Out-competes weedy vegetation
7. Taller grass becomes senescent and has slower growth rate
8. Less frequent mowing

$AVES MONEY!!!!
Wildlife and Turf Height

Hazardous Wildlife Population

Population

Turf Height (Inches)
Military Aviation

Primary Goal – Ensure mission readiness and combat capability while providing the safest flying environment possible.
Military Airfields

Artificially maintained environments designed specifically for the safe launch and recovery of aircraft.
Military Airfields

Attracting wildlife to an airfield is mutually detrimental to wildlife and mission capability.
Sikes Act

Integrated Natural Resources Management Plan (INRMP) that sustains the natural infrastructure while preserving the capability to support the military mission.

Minimize flight risks by making the airfield and AMA unattractive to hazardous wildlife.
Commanders may choose to assist in conservation; however,

BASH personnel will ensure the aircraft movement areas are not utilized as wildlife conservation easements.
Federally-listed T&E Species

Whooping Crane
*Grus americana*
State Listed T & E species
INRMPs provide for the protection and conservation of state listed protected species when practicable.

Provide conservation measures for species protected by state law when such protection is not in direct conflict with the military mission.
When conflicts occur, consult with the appropriate state authority to determine if any conservation measures can be feasibly implemented to mitigate impacts.
Mutual Agreement July 2001

- BASH Team Chief
- USDA Scientist Project Leader
  Sandusky Field Office
- USDA Wildlife Services Biologists
- Mass Division of Fisheries and Wildlife Endangered Species Division
Mutual Agreement July 2001

- Airfield Survey

- Chief of USAF BASH Team recommended approval of the May 2001 mowing plan

- Mowing boundaries that were agreeable to all parties

- Does not adversely affect flight safety
Reevaluation in 2004

- BASH Team Subject Matter Experts
- Mass Division of Fisheries and Wildlife Endangered Species Division
- USDA Experts
- AF Reserve Flight Safety SMEs
Reevaluation in 2004

August 2004

Refined mowing plan

Increased grassland by removing brush
Wildlife Workshop

31 Jul to 1 August 2012

AF BASH Team

AFSEC SJA

USDA Subject Matter Experts
Wildlife Workshop

USAF BASH Team Chief

Mow Aircraft Movement Areas
Plus 500 feet beyond

No basis for a waiver
OTHER WILDLIFE
PREDATORS
TURF MANAGEMENT
Flight Safety

Deficiencies:

F.8491.1281076: Significant

"UNIT IDENTIFIED DEFICIENCY" The current Westover ARB airfield mowing plan is not in compliance with Air Force Instruction 91-202. Specifically, the current mowing plan permits delaying mowing the grass on the airfield until after the local bird nesting season has passed. This results in enormous sections of the airfield (in close proximity to the Aircraft Movement Areas) becoming a wildlife attractant on the airfield. This results in decreasing the margin of safety for continuing safe aviation activity at Westover.

Reference: AFI 91-202, para 7.3.1.5.9

OPR: AFRC/A7

OCR: AFRC/JA/SE

MAJCOM FAM OPR: AFRC A7
Airfield Mowing

- AFI 91-202 amended by Safety Center in 2011
  - Grass in AMA + 500ft mowed to height of 7-14”
  - Prior to amendment, installations had discretion

- Impact at Westover
  - Mow 733 acres more often
  - Start mowing earlier (in May or June) in order to meet 7-14” standard

- PROBLEM: NGO stakeholders & State of MA
  - Two state-listed species, Grasshopper Sparrow and Upland Sandpiper nest in May/June
  - Westover airfield best habitat in all New England
Airfield Mowing

- Waivers to mowing were allowed by AFSEC by request to augment mowing
  - Waivers denied by AFSEC

- Change in mowing practice triggered NEPA analysis

- Environmental Assessment (EA) drafted
  - Facilitated by AFCEC
  - Written by contractor

- Goal – Assess the outcome of mowing in accordance with regulation, and how it affects environmental and flight/airfield safety
Mowing Timeline

- Oct 2012 - Waiver for mowing Requested
- Apr 2013 - Waiver Resubmitted to AFRC/SEC
  - Denied by AFRC/SEC and AFSE
- May 2013 EA Ordered
- Jun 2013 Draft EA came back with a FONSI
- Jul 2013 End of Comment Period for Draft EA/FONSI
- Aug 2013 Final EA/FONSI Distribution
  - With Delay for comment period; estimated 23 Aug 13
Comments Received

- Mass Fisheries and Wildlife
- New Jersey Audubon
- Mass Audubon
- Mass Ornithologist

General consensus is that they disagree with EA and want more studies completed before we mow
First Environmental Assessment

- Finding of no Significant Impact

- State questioned the term Significant
  - Possible loss of 25% of population found not significant

- “Significant” had a different meaning with the Commonwealth of Massachusetts
EA Finding of No Significant Impact

- Comments received from stakeholders and the threat of legal action from the state over FONSI

- Westover legal office deemed EA legally insufficient and vulnerable to litigation in Fall 2103 due to:
  - Inadequate discussion of scientific basis for mowing practice change
  - No empirical support (in the EA) for proposition that new standard would reduce BASH risk
  - No substance to proposed alternatives
Final Environmental Assessment

- The Way Forward...

- Another EA ordered
  - Completed in April 2015

- Finding of No Significant Impact (FONSI)

- Analyzed potential environmental consequences of three possible alternatives
Consultation with Stakeholders

The USAF conducted extensive consultation with all stakeholders:

- Mass Division of Fisheries and Wildlife
- Local and state government officials
- Public and private regional agencies, etc.
Proposed Action

- Manage airfield vegetation to maximize flight safety and minimize the BASH risk.

- Vegetation cover (grass height) within 500 feet of the AMA between 7 and 14 inches.

- Conserve State-listed species to extent practicable
No Action

- Continue the current mowing program

- Maintain 7 to 14 grass height in 499 acres of the AMA – mow 2-3 times per year

- Mow 832 acres once per year - Would jeopardize safety and not be compliant.

- Does not meet the project need.
Alternative One

- Initiate mowing earlier and increase the mowing rate

- Basically, mow the whole airfield 2-3 times per year

- Maintain grass height of 7-14 inches on the AMA plus 500 feet
Alternative Two (Preferred)

- Application of plant growth regulators and mow as necessary with additional tools such as pre-emergent herbicides and controlled burns
- Multi-component management approach
- Delay the first mowing by 8-10 weeks
Controlled Burn

- A controlled burn of portions of the grassland occurs each year in the spring and fall.

- Slowly transitioning the ecosystem towards a greater dominance of warm season grasses over cool season grasses.
Final Decision

- Multicomponent vegetation management approach (Alternative 2) would not result in or contribute to significant negative cumulative or indirect impacts to the resources of the region.
Westover BASH Plan

- Aircraft movement area maintained to a grass height between 7 and 14 inches to 500 feet beyond the boundary.
- Weekly grass height observations
- Spot mow areas where grass height reaches 10 inches.
- Plant growth regulator applied by May 1st
- Circuit mowing as soon as all sectors have reached 10 inches or after birds have fledged
Access

- Westover continues to grant access to interested parties (bird groups) to conduct surveys and monitor the populations of various bird species present on the base, including those listed as Threatened, Endangered or of Special Concern.

- Requests routed through Safety, CE, and airfield management
Strike Record

- 502 strikes since 1998
- Five damaging strikes:
  - Killdeer (2016), Red Tail Hawk (2012)
- No damaging strikes with mammals
Current Regime

- Controlled burns, herbicides much more effective in achieving compliance
- Vegetation height in compliance throughout the year
- State signed the INRMP in 2016
- Birds are OK
QUESTIONS?

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