

**BY ORDER OF THE COMMANDER  
436 AIRLIFT WING (AMC)**

**DOVER AIR FORCE BASE  
INSTRUCTION**



**91-212**

**15 APRIL 2025**

**SAFETY**

**DOVER AFB BIRD/WILDLIFE  
AIRCRAFT STRIKE HAZARD (BASH)  
PROGRAM**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction provides a base program to minimize aircraft exposure to potentially hazardous wildlife strikes. It implements DAFI 91-202, *The US Air Force Mishap Prevention Program*, dated 20 March 2020. This instruction applies to all host, associate, and temporary duty organizations on Dover AFB, including US Air Force Reserve members and units. The 436 AW/SEF is the Office of Primary Responsibility (OPR). The 436 AW/CC is responsible for implementation of this instruction. Submit requests for waivers through the chain of command to the Publication OPR. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. This publication may be supplemented. Refer recommended changes and questions about this publication to 436 AW/SEF, using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFI 33-322, *Records Management and Information Governance Program*, dated 23 March 2020, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Management System.

**SUMMARY OF CHANGES**

This document has been updated to reflect changes in the BASH program. Changes have been made in each section and this document should be reviewed in its entirety.

## 1. BASH Program Information.

1.1. **Overview.** Dover AFB is in an area of high Bird/Wildlife Aircraft Strike Hazard (BASH) potential. Located on the Atlantic migratory flyway, Dover AFB is a stop-over zone for thousands of migrating birds from October to April each year. The air base is close to three wildlife refuges, surrounded by grain and bean farms, and has several large bodies of water nearby. A healthy resident goose population exacerbates the situation.

### 1.2. Specific hazards.

1.2.1. Waterfowl. Canada and Snow goose populations present a significant hazard to the Dover flying environment. In addition to a resident Canada goose population, migratory birds begin arriving in early October and depart in early April. These birds gather in flocks of several hundred to several thousand and fly across Dover's approach and departure corridors during their daily transition between roosting and feeding areas. Dispersal techniques include, but are not limited to, the use of working dogs, pyrotechnics, paintball guns, trapping, relocating, removal, and depredation.

1.2.2. Birds of prey. Hawks, owls, and vultures soar over and near Dover's runways in search of food. While hunting, they often fly co-altitude with aircraft on the approach and departure flight paths. Mitigation efforts include ridding the airfield environment of rodents and other attractants. Dispersal techniques include, but are not limited to, the use of working dogs, pyrotechnics, paintball guns, trapping, relocating, removal, and depredation.

1.2.3. Gulls. Gulls present a particularly hazardous threat to Dover AFB. A distinct pattern has emerged where gulls fly from the coastal area across both runways inland in the morning in small groups. In the late afternoon, they gather at the marsh and quarry ponds at the approach end of runway 01. When leaving this area at dusk, they spiral up in large groups to circle the ponds at altitudes up to 1,000 feet above ground level and fly back to the coastal areas across the approach of runway 01 and occasionally runway 32. During cold weather and rainy days, the birds use runway overruns and taxiways as areas to warm themselves. During heavy rainfall, the worms on the airfield move to the paved surface and attract gulls. Sweepers are dispatched to remove the worms. Dispersal techniques include but are not limited to the use of working dogs, pyrotechnics, paintball guns, trapping, relocating, removal, and depredation.

1.2.4. Blackbirds. These species present a hazard during their flocking season, which peaks from mid-October through November and again in February. The large number of birds presents a significant threat when they feed on seeds in the vicinity of the airfield. Mitigation efforts include the use of long grass management techniques IAW DAFI 91-212 Section 3.2.1.4. Dispersal techniques include but are not limited to the use of working dogs, pyrotechnics, paintball guns, trapping, relocating, removal, and depredation.

1.2.5. Quarry ponds. There is a large gravel pit facility operated by Pennsy Supply, Inc south of Dover AFB at the approach end of runway 01 that has several large bodies of fresh water. The ponds attract large numbers of waterfowl and gulls resulting in a significant hazard to air traffic. Dispersal techniques include but are not limited to the use of working dogs, pyrotechnics, paintball guns, trapping, relocating, removal, and depredation, as well as cooperative environmental management efforts.

1.2.6. Greenwood Pallet Company. This property is operated by Fossen Holdings, LLC

which is located 950 feet east of runway 01/19. This facility is a pallet supplier which presents a minor hazard due to birds perching on pallets. Dispersal techniques include, but are not limited to, the use of working dogs, pyrotechnics, paintball guns, trapping, relocating, removal, and depredation.

**1.3. Bird Hazard Working Group (BHWG).** Refer to DAFI 91-212 Section 2.3. The BHWG will physically meet during the months of March and September to recommend changes in BASH plan procedures, awareness, and education, to identify and recommend actions to reduce hazards, and to review wildlife strike statistics, habitat management/modification, and activities/results of Wildlife Control (USDA). The BHWG is hosted by Wing Safety (436 AW/SE) and chaired by the Deputy Wing Commander (436 AW/CD). Other members include: 436 AW/CP (Command Post), 436 AW/PA (Public Affairs), 436 AW/JA (Legal), 512 AW/SE (Safety), 436 OG/CC, 512 OG/CC, 3 AS/CC, 9 AS/CC, 709 AS/CC, 326 AS/CC, 436 OSS/CC, 436 OSS/OSA (Airfield Ops), 436 OSS/OSAA (Airfield Management), 436 OSS/OSAT (Tower), 436 OSS/OSO (Current Ops), 436 OG/OGV (Stan/Eval), 512 OG/OGV (Stan/Eval), 436 MSG/CC, 436 CES/CEOD (CE Chief of Ops), 436 CES/CEOES (Grounds QAE), 436 CES/CEOHB (Pest Management), 436 CES/CEIE (Environmental Section), 436 FSS/SVRA (Aero Club), 436 CONS/LGCB (Contracting), and local USDA representatives.

**1.4. Habitat modification.** By incorporating specific practices into the base land management plan, Dover AFB can maintain a flight line habitat that is less attractive to birds and other wildlife. Any base beautification or wetland enhancement plans will be coordinated through Wing Safety (436 AW/SE), Legal (436 AW/JA), Civil Engineering (436 CES/CEIE), and Airfield Operations (436 OSS/OSA).

1.4.1. Managing grass height. Refer to DAFI 91-212 Section 3.2. A properly designed and maintained long grass management program strives to reduce the bird population on the airfield. Long grass works to deter birds by either preventing them from efficiently seeing the invertebrates close to the ground or from seeing into the distance, making them unable to remain vigilant for the approach of predators. Short grass cutting (i.e., the manicured lawn protocol) should be limited as much as possible. The areas immediately around buildings and hangars on the base proper could be cut short if required, but the standard throughout the airfield environment should be longer grasses with only qualified exceptions.

1.4.2. Controlling broad-leafed weeds. These weeds attract a variety of birds, may produce seeds or berries, and may limit grass growth. Keep broad-leafed weeds to a minimum on the airfield. Apply herbicides as necessary to achieve this and comply with AFMAN 32-1053, *Integrated Pest Management Program*.

1.4.3. Planting sparsely vegetated areas. Eliminate bare areas on the airfield. Plant grass species unattractive to wildlife as necessary to maintain ground cover.

1.4.4. Fertilizing. Selectively stimulate grass growth to promote adequate vegetation height and uniform cover. Otherwise limit use of fertilizer that promotes lush green growth attractive to wildlife.

1.4.5. Removing edge effect. Maintain the airfield as uniformly as possible to reduce the transition zone between two distinct habitat types (e.g., brush to grassland).

1.4.6. Leveling of airfield. Level high spots or low spots to reduce attractiveness to wildlife and prevent standing water, with the exception of wetlands.

1.4.7. Remove dead vegetation. Removing brush piles, grass clippings, etc. will effectively remove the cover it affords and help control rodent populations.

1.4.8. Remove bird and animal carcasses from the airfield. To avoid attracting scavengers, remove carcasses as soon as they are discovered. Forward remains that may have been caused by collision with aircraft to Flight Safety (436 AW/SEF) for identification.

1.4.9. Pest controls. Invertebrates and rodents are key food sources for many birds. Periodically survey and reduce these pests when required. Pesticides and traps can reduce pest populations. Pesticide use must be coordinated through and approved by 436 CES Pest Management and in strict accordance with their instructions IAW AFMAN 32-1053, *Integrated Pest Management Program*, and in conjunction with the approved Environmental Protection Agency permit for Dover AFB regarding storm-water pollution prevention.

1.4.10. Maintaining drainage ditches. Regularly inspect and clear ditches. Maintain ditch sides as steep as possible (minimum slope ratio of 5 to 1) and mow vegetation to discourage wading birds and emergent vegetation. Improve drainage as necessary to inhibit temporary ponds or puddles and coordinate with 436 CES/CEIE to ensure no impact on wetlands.

1.4.11. Eliminate roosting sites. Control roosts by vegetation management of roost sites where possible. If necessary, prune trees to reduce the number of perches. Refer to the local area Land Management Plan and UFC 3-260-01, *Airfield and Heliport Planning and Design*.

1.4.12. Discourage wildlife feeding. Signs should be placed in picnic areas to educate the public on the hazard posed by feeding wildlife, particularly geese.

**1.5. Bird and Wildlife Dispersal Operations.** Airfield Management, Wildlife Control (USDA), and Pest Management may accomplish bird and wildlife dispersal operations on base. Wildlife Control is the approved agent for off-base dispersal, as they have built relationships with those landowners. Should Wildlife Control be unavailable, Airfield Management or Pest Management may conduct off-base dispersal operations if they have received approval from the landowners. Dispersal techniques include, but are not limited to, the use of working dogs, pyrotechnics, paintball guns, trapping, relocating, removal, and depredation IAW DAFI 91-212 Section 3.2.2. Prior to conducting dispersal, the Dover ATC tower will be contacted by telephone or radio for coordination of bird movement. Personnel performing dispersal will inform tower of the location of birds and anticipated direction of movement. If dispersal is being conducted off base, use the grid map (see Attachment 2) to ensure clear communication of the location. No bird movement will be accomplished until cleared by tower personnel. Upon approval for bird movement, tower may elevate the airfield's bird watch condition (BWC), if appropriate. Contact the tower once dispersal operations are complete and birds have vacated the area. The tower may then change the BWC as appropriate.

1.5.1. A permit is not required to scare or herd migratory birds on the airfield, according to 50 CFR § 21.100 *Depredation Permits*, except for bald or golden eagles and federally listed threatened and endangered species. Consult with the United States Fish and Wildlife Services to prevent violation of the Endangered Species Act from wildlife harassment actions that may disturb federally listed threatened/endangered species. **(T-0)** A federal permit is required to disturb golden and bald eagles and their nests or eggs, consistent with the Bald and Golden Eagle Protection Act as codified in 50 CFR § 22 *Eagle Permits*. DAFB does not currently have an eagle depredation permit. However, per USFWS final rule on 12 Feb 2024, 'hazing' of eagles which does not 'disturb' eagles is allowed without an eagle

depredation permit. 50 CFR 22 defines ‘disturb’ as to “agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.” **(T-0)** Consult with AFSEC/SEFW or CES Environmental Compliance at 677-4753 for additional support.

1.5.2. Notify Base Defense Operation Center (BDOC) 677-6664 and Law Enforcement (LE) 677-6666 anytime pyrotechnics will be discharged on base. Include number of personnel, location, start time, and estimated completion time.

**1.6. Bird and Wildlife Depredation.** Lethal depredation may need to be accomplished to reinforce reaction to pyrotechnics or eliminate a strike hazard from the airfield. Strict adherence to the Dover AFB depredation permits issued by the U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control (DNREC) is required. In the context of the Migratory Bird Treaty Act (MBTA), the definition of take is to “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.” The Deputy Base Civil Engineer maintains the permits which must be renewed annually, and annual takes are reported to both USFWS and DNREC. These permits must always be carried while depredating. The number of each wildlife species taken, method of take for each, and disposition of each species must be documented and reported to CES Environmental Compliance at the end of every calendar year. Additionally, the number of migratory birds captured and active nests destroyed for each species must be documented and reported to CES Environmental Compliance at the end of every calendar year. Refer to the permits for the number of each species allowed, disposition of remains, firearm and ammunition requirements, and specific restrictions. IAW DAFI 91-212 Section 3.2.3.1, Dover AFB will maintain an organic capability to carry out lethal depredation of wildlife for flight safety regardless of the service agreement with USDA Wildlife Services or contracted BASH control services. The following depredation restrictions apply to Dover AFB:

1.6.1. Only qualified Pest Management, Wildlife Control (USDA) personnel, or “authorized agents” will conduct lethal depredation activities within the boundaries of Dover AFB’s depredation permits. Pest Management may identify and use external “authorized agents” within the wing, subject to the training requirements identified below. Personnel conducting depredation operations shall be separated at Public Transportation Route (PTR) distance from all explosive storage and handling facilities IAW DESR 6055.09\_AFMAN 91-201, *Explosives Safety Standards*.

1.6.2. “Authorized agents” supplementing Pest Management emergency depredation efforts must undergo the following training prior to conducting lethal depredation on Dover AFB. Pest Management will coordinate, fund, and maintain training records. Course funding will be provided by Pest Management or the “authorized agent’s” owning organization.

1.6.2.1. Delaware Wildlife Control Operator (WCO) Training and Certification. <https://store.nwctp.com/products/delaware-wco-training-and-certification> (24 hours).

1.6.2.2. Online Hunter Education Course. Any authorized internet course listed on [dnrec.delaware.gov/fish-wildlife/hunter-education/courses/](https://dnrec.delaware.gov/fish-wildlife/hunter-education/courses/) (6 hours).

1.6.2.3. DNREC Field Day Training. In person basic hunter education (4 hours).

- 1.6.2.4. Dover AFB depredation permit and Endangered Species Act (ESA) training. Provided by Dover Natural & Cultural Resources Manager annually (1-2 hours).
- 1.6.2.5. Equipment safety and familiarization training for Pyrotechnics and M870 BASH shotguns. Annual requirement provided by Dover AFB CATM (8 hours).
- 1.6.2.6. Airfield driving qualification and credentials for access onto the airfield. CMA access is required, training provided by Airfield Management annually (initially 8 hours, 1 hour annually).
- 1.6.2.7. A ride-along with Dover AFB USDA biologists is recommended (not required).
- 1.6.3. Notify SFS Base Defense Operation Center (BDOC) 677-6664 and Law Enforcement (LE) 677-6666 anytime firearms will be discharged on base. Include number of personnel, location, start time, and estimated completion time.
- 1.6.4. Transport weapons and ammunition IAW AFMAN 31-129, *USAF Small Arms and Light Weapons Handling Procedures*. If small arms ammunition is stored within the USDA contractor or Pest Management facilities, an Explosives Facility License (AF IMT 2047) is required and shall be issued by the 436 AW/SEW Weapons Safety Manager. Regardless of quantity, the explosives facility license shall conform to all requirements listed in DESR 6055.09\_AFMAN 91-201. If a clearing barrel is used, it shall conform to the requirements listed in AFMAN 31-129, Section 4.1.
- 1.6.5. Notify the Base Legal office when conducting planned depredation. If emergency depredation is conducted, notify as soon as possible.
- 1.6.6. Wing Safety is the OPR for all planned depredations.
- 1.6.7. All depredation conducted at the off-base quarry ponds located at the south end of runway 01 will be coordinated with Pennsy Supply, Inc.
- 1.6.8. Any depredation conducted on private property requires written consent of the property owner and prior coordination with the Legal office (436 AW/JA).
- 1.6.9. All participants will wear blaze orange during depredation operations.
- 1.6.10. An Air Force observer who is not shooting will act as depredation supervisor and will have authority to stop shooting or depredation operations at any time. Depredation will be stopped if an unsafe action or condition exists.
- 1.6.11. Clear “hold fire” communication will be established and briefed prior to depredation.
- 1.6.12. Section 1.5 dispersal operations instructions apply for bird depredation.
- 1.6.13. Per the Bald and Golden Eagle Protection (BGEPA), no bald or golden eagles or their nest and/or eggs may be taken without an eagle depredation permit, which DAFB does not have. The definition of ‘take’ in the context of the BGEPA is different than the definition of ‘take’ under the MBTA. ‘Take’ under the BGEPA means to “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb.” When these species are present, consult with the U.S. Fish and Wildlife Service or CES Environmental Compliance at 677-4753 to identify mitigation strategies.
- 1.6.14. Per the Endangered Species Act (ESA) of 1973, ‘take’ of federally listed threatened or endangered species is not authorized without an incidental take permit, which DAFB does not have. The definition of ‘take’ in the context of the ESA is different from both the MBTA

and the BGEPA, and is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” When these species are present, consult with the U.S. Fish and Wildlife Service or CES Environmental Compliance at 677-4753 to identify mitigation strategies. Accepted mitigation efforts should not increase conservation of the airfield or risk to flight safety.

## **2. Organizational Tasking.**

### **2.1. Deputy Wing Commander (436 AW/CD).**

2.1.2. Chairs the BHWG and is the approval authority for recommendations.

### **2.2. Operations Group Commander (436 OG/CC).**

2.2.1. Retains waiver approval authority for USAF aircraft takeoffs and landings during BWC SEVERE.

2.2.2. Issues guidance to the Airfield Operations Flight on procedures during BWCs.

2.2.3. Makes operational changes to avoid areas and times of known hazardous bird concentrations, mission permitting.

### **2.3. Wing Safety (436 AW/SE).**

2.3.1 OPR for the BASH program.

2.3.2 Completes annual review of this instruction and electronically forwards document to HQ AMC/SEF each year.

2.3.3 OPR for the BHWG.

2.3.4 Recommends and notifies appropriate base agencies of implementation/termination of BASH Phase II.

2.3.5 Serves as the Quality Assurance Evaluator for the Wildlife Control contract.

2.3.6 In conjunction with 436 CES, maintains liaison with Delaware Department of Natural Resources and local wildlife refuges.

2.3.7 Educates base population on wildlife strike potential and procedures at Dover AFB.

2.3.8 Ensures BASH plan is published on unit safety web page. Wing Safety will notify AMC/SEF if the local web address changes.

2.3.9 Conducts an annual inspection of the appointment letters and training records of authorized depredation agents identified and maintained by Pest Management.

2.3.10 Assists Wildlife Control (USDA) with collecting wildlife remains to be sent to the Smithsonian for identification.

### **2.4. Wildlife Control (USDA).**

2.4.1. Patrols Dover AFB and selected surrounding properties.

2.4.2. Notifies tower of presence of hazardous bird activity on or around airfield.

2.4.3. Conducts dispersal operations IAW Section 1.5.

2.4.4. Conducts depredation IAW Section 1.6.

2.4.5. Coordinates with 436 CES Pest Management for rodent and insect control.

2.4.6. Coordinates with 436 CES Pest Management for emergency depredation issues.

2.4.7. Collects bird remains from both 436 MGG(P) and 512 MXG on a weekly basis.

2.4.8. Responsible for wildlife strike reporting IAW Section 3.

## 2.5. Command Post (436 AW/CP).

2.5.1. Disapproves any request from transient crews to train in the local Dover area if BASH Phase II restrictions are in effect (see Section 4).

2.5.2. Coordinates for delay, diversion, and release of AMC-controlled aircraft based on BWC. Issues bird watch advisories to all non-USAF aircraft transiting Dover AFB.

2.5.3. Assigns X113 delay code for AMC missions delayed by wildlife hazard conditions.

2.5.4. Ensures transient aircraft involved in a wildlife strike fill out an AF IMT 853, *Air Force Wildlife Strike Report*, and forward it to Wing Safety.

## 2.6. Air Traffic Control (436 OSS/OSA).

2.6.1. Monitors bird activity using tower observation, RAPCON reports, aircrew reports, and Wildlife Control (USDA) reports.

2.6.2. Tower supervisors determine the BWC based on wildlife activity IAW Section 4. The tower supervisor, after coordination with the RAPCON supervisor, can downgrade the BWC if visual observation reveals that the activity is not a probable hazard to flying safety. After a reported bird strike, the BWC will be raised to MODERATE for reassessment of the BWC. During this time, tower, with recommendations from Wildlife Control (USDA) and aircraft in the pattern, will determine an appropriate BWC. In addition to the tower's observations, the BWC will be based on reports from the RAPCON, aircrews, safety, and/or information provided by Wildlife Control (USDA).

2.6.3. Advises all personnel, aircraft, vehicles, and Wildlife Control (USDA) over the tower net when the BWC changes. Airfield Management Operations will be notified via the Information Dissemination System alarm notification.

2.6.4. During BASH Phase II, tower will broadcast the BWC on the Automatic Terminal Information Service (ATIS) and to Wildlife Control (USDA) over the tower net when the BWC changes. Tower controllers will make a blanket broadcast on the tower net stating any changes to the BWC Monday through Friday from sunrise to sunset. Phraseology example would be: "Attention all vehicles and personnel, Dover's bird watch condition is (LOW, MODERATE, SEVERE)". The BWC should be included on the ATIS when the BWC is MODERATE or SEVERE, regardless of BASH Phase I or II. When the BWC is rapidly changing tower will include the following statement on the ATIS: "Due to rapidly changing bird watch conditions, contact Dover Tower or Dover Approach for current bird watch condition."

2.6.5. Issue detailed advisories to all arriving aircraft through approach control and to all departing aircraft through ground control prior to switching to tower frequency.

2.6.6. Coordinates activities with bird dispersal units IAW Section 1.5.

## 2.7. Airfield Management (436 OSS/OSAA).

2.7.1. Coordinates on-base wildlife controls including harassment, grounds maintenance,

and depredation.

2.7.2. Inspects airfield and runways for potential wildlife hazards.

2.7.3. Coordinates with Wildlife Control (USDA) for assistance in wildlife dispersal.

2.7.4. Notifies tower of hazardous wildlife activity on or around airfield.

2.7.5. Notifies Command Post of BWC.

2.7.6. Reports known wildlife strikes to Wing Safety.

2.7.7. Retrieves, or contacts 436 CES Pest Management to retrieve, carcasses on taxiways and runways.

2.7.8. Conducts dispersal operations IAW Section 1.5.

2.7.9. Coordinates with the Pentagon and State Department to have foreign aircraft adjust arrival/departure times to comply with BASH Phase II restrictions IAW Section 4.

## **2.8. Civil Engineering (436 CES).**

2.8.1. Monitors contractor compliance with the grass management program.

2.8.2. Pest Management and any “authorized agents” will conduct harassment and lethal depredation during periods of Wildlife Control (USDA) unavailability. Harassment, depredation, and reporting will be IAW Sections 1.5 and 1.6. “Authorized agent” requirements are outlined in Section 1.6.2.

2.8.3. Conducts pest management including insect and rodent control.

2.8.4. Applies for and maintains federal and state fish and wildlife depredation permits.

2.8.5. Complies with habitat management as outlined in Section 1.4.

2.8.6. Complies with mitigation practices outlined in Section 3.2 of DAFI 91-212, Bird/Wildlife Aircraft Strike Hazard (BASH) Management Program, dated 13 April 2023.

2.8.7. In conjunction with Wing Safety, maintains liaison with Delaware Department of Natural Resources and local wildlife refuges.

2.8.8. Pest Management will coordinate training and maintain records to include an appointment letter for “authorized agents” assisting in lethal wildlife depredation.

## **2.9. Current Operations (436 OSS/OSO).**

2.9.1. Schedules takeoffs and landings to comply with BASH Phase II restrictions IAW Section 4.

2.9.2. Coordinates with 618 Air Operations Center (AOC) to schedule mission arrivals and departures to comply with BASH Phase II restrictions to the maximum extent possible IAW Section 4.

2.9.3. Forward BASH Phase I and Phase II start/end dates (normally 1 October and 1 April) to 618 AOC planning cell for entry into the Global Decision Support System (GDSS) Airfield Database as a planning remark in the Temporary Restrictions/Planning Remarks section.

2.9.4. Enter sunrise, sunset, and BASH windows on the monthly schedule.

## **2.10. Maintenance Groups (436 MGG(P) & 512 MXG).**

2.10.1. Maintenance personnel will complete AF Form 853, *Air Force Wildlife Strike Report*, if not already completed by aircrew.

2.10.2. Report all wildlife strikes to Wing Safety and USDA personnel.

2.10.3. Store all wildlife strike remains for pickup by USDA personnel and/or Wing Safety.

#### 2.11. **Public Affairs (436 AW/PA).**

2.11.1. Maximizes public awareness and understanding of the impact wildlife has on safe flying operations.

2.11.2. Informs internal and external audiences on the reason for, and ethical means of, controlling wildlife populations on Dover AFB.

2.11.3. Approving official for information requests and news releases regarding the wildlife control program.

2.11.4. Use all means available to ensure the base population, to include housing residents, are aware of depredation activities. Ensure planned depredation is advertised in base paper, EIM, and electronic message board as time permits.

#### 2.12. **436th Operations Group Tactics and Training (436 OSS/OSK).**

2.12.1. Assesses low altitude tactical and VFR training areas using Avian Hazard Avoidance System (AHAS) and Bird Avoidance Models (BAM) and ensures Integrated Mission Sorties (IMS) are scheduled appropriately and IAW with BASH Phase II restrictions.

#### 2.13. **Security Forces Squadron (436 SFS).**

2.13.1. Coordinates depredation IAW Section 1.6.

### 3. **Reports and Forms.**

3.1. All wildlife strikes (damaging and non-damaging) will be reported to Wing Safety and Wildlife Control (USDA) personnel on the AF IMT 853, *Air Force Wildlife Strike Report*.

3.2. All wildlife strike events must be reported in the Air Force Safety Automated System (AFSAS), IAW with DAFMAN 91-223, *Aviation Safety Investigations and Reports* guidance.

3.2.1. Wildlife strikes will be entered into AFSAS by either Wildlife Control (USDA) or Wing Safety as they occur, but no later than the 15th of the following month.

3.2.2. Collect, submit, and file an AFSAS wildlife strike report for all remains, whether whole or in part, found on the airfield within 250 feet of a runway centerline, or within 1,000 feet of a runway end unless the animal's death may be definitively attributed to another source.

3.2.3. All non-USAF bird strikes that occur at Dover AFB will be reported as Hazard events.

3.3. Wildlife Control (USDA) personnel will forward wildlife remains to the Smithsonian Institution IAW DAFMAN 91-223.

### 4. **Flying Operations.**

4.1. **Bird Watch Conditions (BWC).** The following terminology is established to rapidly communicate bird activity. Restrictions associated with each condition are applicable to all USAF aircraft. The BWC applies to all runways at Dover AFB regardless of the active runway. It cannot be overstressed that the use of numbers ("5-15 large birds") in the definition of a

BWC is intended as a guide. Personnel responsible for establishing and maintaining a BWC must assess many factors. One bird in any given location can drive a BWC of SEVERE, MODERATE, or LOW. **NOTE: The restrictions associated with each condition do not preclude the pilot in command's emergency authority to land if fuel status or other emergencies pose a greater risk.**

4.1.1. BWC LOW. Defined as normal bird activity [fewer than 5 large birds (waterfowl, raptors, gulls, etc.) or fewer than 15 small birds (terns, swallows, etc.)] on or above the airfield with a low probability of hazard. This is the default BWC, including during periods of low visibility/night and during BASH Phase II peak bird hours, unless visual sightings require an elevated condition.

4.1.2. BWC MODERATE. Declared during increased bird activity [5 to 15 large birds (waterfowl, raptors, gulls, etc.) or 15 to 30 small birds (terns, swallows, etc.)] in locations (aerodrome and within 20 degrees of arrival and departure corridors) that represent an increased strike potential. The BWC will be elevated only if visual sightings indicate that bird activity presents an actual threat. Only initial takeoffs and full-stop landings allowed.

4.1.3. BWC SEVERE. Declared when heavy concentrations of birds [more than 15 large birds (waterfowl, raptors, gulls, etc.) or 30 small birds (terns, swallows, etc.)] are on or immediately above the runway or specific locations (taxiways, in-field areas, departure, or arrival routes, etc.) that represent a high strike potential. The BWC will be elevated only if visual sightings indicate that bird activity presents an actual threat. USAF aircraft takeoffs and landings require 436 OG/CC approval. The pilot in command (PIC) will coordinate with ATC to determine the best departure/arrival route and runway. The PIC will coordinate through Command Post to obtain 436 OG/CC approval. Command Post will notify tower and RAPCON if operations are approved or disapproved.

4.1.4. BWC SEVERE or MODERATE requires action from Wildlife Control (USDA), via coordination from Airfield Management, to reduce the BWC to LOW as soon as possible.

4.1.5. During daytime operations, BWCs will be determined by personnel observing actual wildlife activity on and around the airfield.

4.1.5.1. Observation of hazardous bird activity by airfield personnel must not be replaced by avian radar output. Dependence on avian radar detections alone during daylight or normal visual conditions is an ineffective strategy for airfield monitoring.

4.1.6. During night or Instrument Meteorological Conditions (IMC) operations, BWCs may be determined by observations supported by remote sensing technology (e.g., FLIR, Air Traffic Control Radar, or avian/bird detection radar).

## 4.2. BASH Phase I/II Designation.

4.2.1. Phase I Period. Phase I operations concentrate on bird control actions and are in effect year-round. During Phase I, BWC will be used to communicate any strike hazards.

4.2.2. Phase II Period. Phase II is implemented during the migratory and flocking bird seasons that historically take place from early October to early April. The decision to alter the Phase II period is accomplished through the BHWG on the recommendations of Wing Safety and Wildlife Control (USDA). Additional restrictions to flying operations apply during the Phase II peak bird hours window.

4.2.2.1. Peak Bird Hours. During the BASH Phase II period, peak bird hours occur

from one hour before to one hour after sunrise and sunset (also known as the BASH Phase II “window”). During this window, there are increased expectations of bird activity and a greater likelihood of reports of the BWC as MODERATE or SEVERE.

4.2.2.1.1. USAF Aircraft Flight Restrictions. USAF aircraft should not be scheduled to takeoff or land during peak bird hours. Current operations will not schedule local training operations during this window. If every effort has been made and operational mission requirements dictate otherwise, mission tasking authorities may assume risk for scheduling operations during peak bird hours. **During execution**, aircraft on operational or training missions that were not scheduled in the window but necessitate operation in the window due to uncontrolled reasons are authorized one takeoff and one full stop landing under the real-time BWC rules as reported by Dover Tower. The PIC is the final authority to determine the best course of action and risk mitigation. PICs should consider real-time BWC, crew fatigue, weather, airspace, aircraft status, and mission management/completion, etc.

4.2.2.1.2. Non-USAF, Military Aircraft. Non-USAF, military aircraft are highly encouraged to modify their arrival and departure times to avoid peak bird hours. They are limited to one takeoff and one full stop landing during peak bird hours.

4.3. **Dover AFB Aero Club/Flight Training Center.** Due to the size, speed, and ability to maneuver for bird avoidance, Dover AFB Aero Club aircraft will be permitted to operate normally during BASH Phase I and Phase II except as follows:

4.3.1. Dover AFB Aero Club aircraft will not takeoff or land during BWC SEVERE.

4.3.2. Dover AFB Aero Club flight instructors will not clear student pilots for solo flight when the BWC is MODERATE or SEVERE.

4.3.3. During BASH Phase II, Dover AFB Aero Club pilots with less than 100 hours total flight time should avoid takeoffs and landings during peak bird hours (see Section 4.2.2.1).

WILLIAM C. MCDONALD, Colonel, USAF  
Commander

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

50 CFR § 21 *Migratory Bird Permits*, <https://www.ecfr.gov/current/title-50/part-21>

50 CFR § 22 *Eagles Permits*, <https://www.ecfr.gov/current/title-50/part-22>

UFC 3-260-01, *Airfield and Heliport Planning and Design*, 5 May 2020

AFMAN 13-204V2\_AMCSUP, *Airfield Management*, 07 June 2021

DAFMAN 31-129, *USAF Small Arms and Light Weapons Handling Procedures*, 29 November 2023

AFMAN 32-1053, *Integrated Pest Management Program*, 06 August 2019

AFI 36-2654, *Combat Arms Program*, 1 March 2024

DAFI 91-202, *The Department of the Air Force (DAF) Mishap Prevention Program*, 20 March 2020

DAFI 91-202\_AMCSUP, *The Department of the Air Force (DAF) Mishap Prevention Program*, 6 March 2025

DAFI 91-212, *Bird/Wildlife Aircraft Strike Hazard (BASH) Program*, 13 April 2023

DAFI 91-212\_AMCSUP *Bird/Wildlife Aircraft Strike Hazard (BASH) Program*, 16 August 2023

DAFMAN 91-223, *Aviation Safety Investigations and Reports*, 20 September 2022

DAFMAN 91-223\_AMCSUP, *Aviation Safety Investigations and Reports*, 15 March 2023

***Prescribed Forms***

*No Forms prescribed by this publication.*

***Adopted Forms***

AF IMT 853, *Air Force Wildlife Strike Report*, 15 October 2005

AF IMT 2047, *Explosives Facility License*, 28 May 2020

***Abbreviations and Acronyms***

**AFSAS**—Air Force Safety Automated System

**AHAS**—Avian Hazard Advisory System

**AMC**—Air Mobility Command

**AOC**—Air Operations Center

**ATC**—Air Traffic Control

**ATIS**—Airport Terminal Information System

**BAM**—Bird Avoidance Model

**BASH**—Bird Aircraft Strike Hazard

**BDOC**—Base Defense Operation Center

**BGEPA**- Bald and Golden Eagle Protection Act

**BHWG**—Bird Hazard Working Group

**BWC**—Bird Watch Condition

**CES**—Civil Engineering Squadron

**DNREC** – Delaware Department of Natural Resources and Environmental Control

**ESA** – Endangered Species Act

**IAW**—In Accordance With

**IMC**—Instrument Meteorological Conditions

**MBTA** – Migratory Bird Treaty Act

**OPR**—Office of Primary Responsibility

**PIC**—Pilot in Command

**RAPCON**—Radar Approach Control

**SFS**—Security Forces Squadron

**USDA**—United States Department of Agriculture

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

Attachment 2  
WILDLIFE REPORTING GRID MAP

Figure A2.1. Wildlife Reporting Grid

