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## Translocating Common Nighthawks at McConnell Air Force Base, Kansas to Reduce Aircraft Strikes

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## **Translocating Common Nighthawks at McConnell Air Force Base, Kansas to Reduce Aircraft Strikes**

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McConnell Air Force Base (MAFB) experiences a unique bird/aircraft hazard problem with migrating common nighthawks (*Chordeiles minor*) from August-October. Nighthawks are the most commonly struck species at MAFB, representing about 38% of total reported bird/aircraft strikes and 82% of the strikes from August-October. Factors that contribute to an over abundance of nighthawks on MAFB are: abundant foraging opportunities in close proximity to the airfield, available roosting habitat for nighthawks on and around the airfield, the lack of a Bird Aircraft Strike Hazard program to address nighthawks, and the location of MAFB on a nighthawk migration route. Approaches for managing nighthawks on and around airfields are limited because of their nocturnal behavior, logistics, and an incomplete understanding of nighthawk behavior. At MAFB, we determined the number of nighthawks using the airfield; their foraging, loafing and roosting areas; and their feeding habits. Based on this information, we developed a management strategy to reduce the nighthawk hazard to aircraft. From August-October in 1999 and 2000, we recorded 540 and 920 observations, respectively, of nighthawks using the airfield. The number of individuals increased rapidly during August and September, reaching a peak between 9-14 September in 1999 and 27-30 September in 2000. During one 2-hour survey period each in 1999 and 2000, 37 and 59 nighthawks, respectively, were flushed from the airfield. Most nighthawk foraging activity at the airfield occurred between 1800-2200. Nighthawks started roosting on the airfield about 1800 with a peak between 2200-0200. Thirty-seven nighthawks collected during the study period consumed a variety of insects, consisting mostly of corn earworm moths (Noctuidae—47% of stomach contents) and beetles (Scarabaeidae). Insect sweeps of the airfield indicated a low density of these species of insects, suggesting that most nighthawks foraging activity occurred away from the airfield. Management of nighthawks on MAFB has been difficult because commonly used hazing techniques seem to be ineffective. Furthermore, nighthawks have a behavior of returning to the same roosting location after being flushed which can present an even greater risk to aircraft. We developed and evaluated a unique live-capture technique for nighthawks using the airfield for the purpose of evaluating nighthawk relocation. During 1999 and 2000, 215 nighthawks were captured and relocated to sites 44 km north and 88 km south from MAFB. Only one nighthawk returned to MAFB after being relocated 44 km north. The nighthawk returned after 11 days to within 100 m of its capture location. Relocation of nighthawks from MAFB in 1999 and 2000 reduced nighthawk/aircraft strikes from 9 in 1998 when no relocation was conducted to 0 in 1999 and 3 in 2000.