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October 2002

# Canada Goose Population Management at the Minneapolis-St. Paul International and Downtown St. Paul Airports

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Cooper, James A., "Canada Goose Population Management at the Minneapolis-St. Paul International and Downtown St. Paul Airports" (2002). *2002 Bird Strike Committee-USA/Canada, 4th Annual Meeting, Sacramento, CA*. 28.

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### **Canada Goose Population Management at the Minneapolis-St. Paul International and Downtown St. Paul Airports**

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A Canada goose (*Branta canadensis*) control program was initiated at the Minneapolis-St. Paul International Airport (MSP) in 1984, and at the Downtown St. Paul Airport (STP) in 1994. Flightless geese >16 km from these airports were trapped (MSP 1,734; STP 1,397), neckbanded (MSP 1,047; STP 502), and observed and counted weekly in fall at 22 and 6 locations >5 km from MSP and STP, respectively. Efficacy was also measured by observing fall goose flights through the operations airspace in 1984-1987 and 1998-2001 (MSP), and 1994-2001 (STP). Based on neckband origin of birds observed >2 km from the airfields, 3,338 flightless geese were removed from 26 MSP and 2,972 from 14 STP sites. From 1990-2001, 641 nests containing 3,604 eggs were destroyed and 458 breeding geese shot on 7 MSP wetlands. MSP populations declined significantly ( $P<0.01$ ) from 61 (1984) to 17 geese/site (1988), and remained significantly lower in all years but 2001. MSP airspace use declined ( $P<0.01$ ) from 25 (1984) to 4 birds/h (1986). During the 1998-2001 period, airspace counts were significantly ( $P<0.05$ ) greater than the 1984 level in the warm falls of 1998 and 2001. December flights increased from 0 (1984-1987) to 120/h (2001). STP populations declined ( $P<0.05$ ) between 1994 and 2001. STP airspace geese dropped significantly ( $P<0.01$ ), from 126 to 27/h. Given a 1984-2001 projected Twin Cities breeding goose increase of 10X and an actual statewide expansion of 9X in Minnesota, the lack of growth in geese at both airports is strong evidence of program effectiveness. A negative correlation ( $P<0.05$ ) was found between geese >2 km of MSP and airspace flights indicating that bird behavior influences flight frequency. MSP goose behavior were recorded during periods of low (1984-1987) and high (1998-2001) harassment by Airport Operations personnel. Birds flew higher and came from more directions with greater hazing, whereas hazing had no effect on the number geese in the airspace or the proportion landing on the Aircraft Operating Area.