## ATTACHMENT #4

To:	Juneau Airport Board	Date: August 8, 2011
From:	Wildlife Hazards Working Group	

Re:

It has been well documented for some time that the resident Vancouver Canada Geese and Mallards that feed on the Mendenhall Wetlands take refuge on Auke Lake during the waterfowl hunting season (Cain, et. al 1988; O'Clair et. al 1992; Carstensen and Armstrong 2004; Armstrong et al 2004; Armstrong et. al 2009). In general the birds leave the wetlands when hunting begins in the morning and return to the wetlands to feed at night. The morning migration from the wetlands begins "as the geese hear or see people coming into the marsh about half an hour before shooting time" (Frank Rue: personal communication) or "after the first shot" (Nick Borchert: personal communication).

Safety concerns regarding daily waterfowl migrations during hunting season

The flight path of these birds appears to take them back and forth across the northwesterly approach of jet aircraft to the Juneau airport. The numbers of birds taking these daily flights during hunting season is about 500-700 Canada Geese and over 500 Mallards. Other species of waterfowl also do this but in much smaller numbers. Due to Alaska's general warming trend Auke Lake has been available for these birds over a longer period of time before the lake freezes over.

The possibility that the daily waterfowl migration might create a hazard to aircraft at JNU has been discussed in detail at Wildlife Hazard Working Group (WHWG) meetings on December 10, 2010, March 19, 2011 and July 19, 2011. During these discussions it was agreed that this daily migration of waterfowl is a potential hazard that should be brought to the attention of the JNU Board of Directors.

WHWG members felt that more information is needed to determine if the daily migration of waterfowl poses a serious threat for aircraft safety. A study to determine the direction, altitude and duration of flock movements, and any avoidance behaviors exhibited by the birds during migration would help to assess the potential severity of the problem. Unfortunately, it appears that there is little chance that funding for such a study will be available and wildlife management personnel at JNU have indicated that there may be other more serious wildlife hazards to deal with.

## References cited

R. H. Armstrong, R. L. Carstensen, and M. F. Willson. 2004. Hotspots: Bird Survey of Mendenhall Wetlands April 2002 to May 2003. Juneau Audubon Society and Taku Conservation Society. Juneau, Alaska. 74 pp.

Armstrong R. H., R. L. Carstensen, M. E. Willson, and M. H. Hermans. 2009. The Mendenhall Wetlands. A Globally Recognized Important Bird Area. Nature Alaska Images. Juneau, Alaska. 80 pp.

Cain, S., J. Hodges, and E. Robinson-Wilson 1988. Bird use of the Mendenhall Wetlands in Juneau, Alaska. USFWS, Juneau, Alaska. 72 pp.

R. Carstensen and B. Armstrong. 2004. Birds and Plane Safety at Juneau Airport. Juneau Audubon Society and Taku Conservation Society. 14 pp.

O'Clair, R. M., R. H. Armstrong, and R. Carstensen. 1992. The Nature of Southeast Alaska. Alaska Northwest Books. Anchorage, Seattle. 254 pp.