QIA 14-1
Source: *Qikiqtani Inuit Association*
Subject: Aircraft Noise
Preamble:
Significance of aircraft disturbance to VEC's in the project area cannot be determine without detailed information related to daily noise from fixed-wing large aircraft and helicopters (e.g., DEIS Vol. 8, pg. 165).

Request:

1. It is requested that the Proponent provide a map detailing the proposed runway alignment and approach plate for all airstrips in the project area together with a noise contour map.

BAFFINLAND RESPONSE

A map detailing the proposed runway alignment and approach plate for airstrips will be provided in the FEIS. The information provided in that map will be considered for the potential disturbance to wildlife VECs. This request will also be addressed in Baffinlands' response Environment Canada IR # 8 (below).

If the effect on caribou are a concern, the current ZOI used for caribou, the terrestrial wildlife key indicator, is 14 km from the PDA, so potential disturbance from aircraft landing at the Mine Site and Steensby Port are included in the current ZOI.

EC 08
Source: Environment Canada
Subject: Aircraft and Zone of Influence
Preamble:
…In [DEIS] *Volume 6 – Section 4.3* [Potential Project Interactions with Birds] *… No specific ZOI were provided for airstrips. The ZOI for airstrips is likely to vary according to the size and level of noise generated by aircraft anticipated to use the strip. Nesting, staging and moulting birds can be quite sensitive to disturbance from aircraft. Section 4.0 of Volume 6.0 states that tens of thousands of snow geese use the Milne Inlet and Steensby Inlet portions of the LSA as a spring migratory stopover and as moulting sites in the fall. In EC's submission to the Joint Review Panel for the Mackenzie Gas Project (J-EC-00136)2, EC calculated that an airstrip 1060 m long and 68 m wide would have a zone of influence for a Dash 7 aircraft (which is smaller than aircraft proposed for use at the Mine Site and Steensby Port) of 8 km long on either end of the runway, taking into account approach and take-off altitudes of <650 m, and a 1.5 km wide buffer (58 km² total ZOI) on either side of the run-way for disturbance during the nesting season and a 3 km wide buffer during fall staging (131 km² total ZOI). The ZOI for a 2000 m long airstrip calculated by the proponent with a 500 m buffer would only be 2 km². The zones of influence calculated for the airstrips by the proponent clearly underestimate the potential habitat disruption and disturbance and effective habitat loss estimated for the project may be much higher than predicted.*

Request:

1) *Please calculate Zones of Influence for each of the airstrips based on the expected aircraft types using each airstrip, the noise levels generated by each type of aircraft during take-off and landing and the area during which aircraft will be below an altitude of 650 m during take-off and landing.*
2) *Based on this information, please update estimates of the changes in habitat effectiveness for each of the bird VECs based on revised estimates for airstrips.*

BAFFINLAND RESPONSE

Given an average landing approach angle of 3°, aircraft will be below 650 m agl approximately 12.4 km from airstrips. Aircraft takeoff angles are larger than approach angles, so disturbance from takeoffs will be more limited than landings. Maps of the Mine Site and Steensby Port facility runway alignment, approach plate and noise contours based on this information will be provided in the FEIS. Similar to the approach taken in the DEIS, habitat suitability will be reduced by one category 500 m to the extent of the zone of influence calculated for the aircraft used and airstrips in the Mary River Project area.

The revised zone of influence will be fully addressed in the FEIS as per direction from Environment Canada and QIA.