Environment Canada Prairie and Northern Region #301-5204 50th Ave. Yellowknife, NT X1A 1E2

March 4, 2008

Your file: 3BC-HLC0406 Our file: 4703 003 017

Richard Dwyer Licencing Administrator Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1J0

Re: Matrix Aviation Solutions Inc. - Hope Lake Camp - Renewal - Type "B"

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the Canadian Environmental Protection Act, Section 36(3) of the Fisheries Act, the Migratory Birds Convention Act, and the Species at Risk Act.

Project Overview:

It is EC's understanding that Matrix Aviation Solutions Inc. has applied for a renewal of a type B water licence for a camp to support an exploration program until 2010. The camp would run seasonally from April 15th to October 15th of each year and would be designed for a maximum of 24 people. The exploration program holds a separate water licence the drilling activities. The camp is located at an old exploration site used in the 1960's. The camp originally received a water licence under the file number NWB6HLC0406, however the camp was never erected as the drilling program did not take place. The current application is for the same area however a new site on the opposite side of established airstrip has been proposed due to the need for an alternate water supply. In 2004 it was determined by Matrix personnel that the licenced water supply was contaminated with fiberglass.

The camp is located 60km SW of Kugluktuk, NT. The camp consists of 10 tents, a latrine and a generator enclosure. The proponent states that all facilities will be located at a minimum of 30 metres from any water body and that the latrine would be constructed at a minimum of 50 metres from any water body.

General:

The proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes, or sediment into any water body. According to the *Fisheries Act*, Section 36(3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or



any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.

- Environment Canada recommends that all sumps are located a sufficient distance from the high water mark of any waterbody, and that they are constructed such that the contents do not migrate out from the sump.
- Environment Canada recommends the use of an approved incinerator for the disposal of combustible wastes.
- All fuel powered equipment, if possible, should be kept a minimum of 30 metres away from any water body or all precautions should be made to ensure that any potential spills do not enter any waterbodies.

Spill Contingency:

- Environment Canada recommends that all fuel be properly stored in an upright
 position to prevent possible leaks or spills. EC also encourages the use of self
 supporting insta-berms to provide secondary containment for all fuel caches,
 rather than relying on natural depressions.
- All spills must be documented and reported to the NWT Spill Line at (867) 920-8130.

The Canadian Wildlife Service (CWS) of Environment Canada has reviewed the abovementioned submission and makes the following comments and recommendations pursuant to the *Migratory Birds Convention Act* (the *Act*) and *Migratory Birds Regulations* (the *Regulations*), and the *Species at Risk Act* (SARA).

- 1. Section 6 (a) of the Migratory Birds Regulations states that no one shall disturb or destroy the nests or eggs of migratory birds. Therefore, Environment Canada recommends that all activities in which there is a risk of disturbing or destroying nests or eggs be conducted outside the migratory bird breeding season, which extends from approximately May 15 to July 31. These dates are approximate, and if active nests (i.e. nests containing eggs or young) are encountered outside of these dates the proponent should avoid the area until nesting is complete (i.e. the young have left the vicinity of the nest).
- 2. For activities permitted to occur during the breeding season, Environment Canada recommends that the proponent confirm there are no active nests (i.e. nests containing eggs or young) in the vicinity of their operations before activities commence. If active nests of migratory birds are discovered, the proponent should halt all activities in the nesting area until nesting is completed (i.e. the young have left the vicinity of the nest).
- 3. In order to reduce disturbance to nesting, moulting, and migrating birds, Environment Canada recommends that aircraft used in conducting project activities maintain a flight altitude of at least 610 m during horizontal (point to point) flight unless safety or cloud ceiling do not permit. Environment Canada

- also recommends that aircraft maintain a vertical distance of 1000 m and minimum horizontal distance of 1500 m from any observed concentrations (flocks / groups) of birds.
- 4. Environment Canada recommends that camp waste be made inaccessible to wildlife at all times. Camp waste can attract predators of migratory birds (e.g., foxes and ravens) to an area if not disposed of properly.
- 5. Section 5.1 of the *Migratory Birds Convention Act* prohibits persons from depositing substances harmful to migratory birds in waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area.
- 6. All mitigation measures identified by the proponent, and the additional measures suggested herein, should be strictly adhered to in conducting project activities. This will require awareness on the part of the proponents' representatives (including contractors) conducting operations in the field. Environment Canada recommends that all field operations staff be made aware of the proponents' commitments to these mitigation measures and provided with appropriate advice / training on how to implement these measures.
- 7. Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds, but will not necessarily ensure that the proponent remains in compliance with the *Migratory Birds Convention Act* (the *Act*) and *Migratory Birds Regulations* (the *Regulations*). The proponent must ensure they remain in compliance with the *Act* and *Regulations* during all phases and in all undertakings related to the project.
- 8. The following comments are pursuant to the Species at Risk Act (SARA), which came into full effect on June 1, 2004. Section 79 (2) of SARA, states that during an assessment of effects of a project, the adverse effects of the project on listed wildlife species and its critical habitat must be identified, that measures are taken to avoid or lessen those effects, and that the effects need to be monitored. This section applies to all species listed on Schedule 1 of SARA. However, as a matter of best practice, Environment Canada suggests that species on other Schedules of SARA and under consideration for listing on SARA, including those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), be considered during an environmental assessment in a similar manner.

| | 000511110 | | Government |
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| Species at Risk that may be encountered | COSEWIC Designation | Schedule of | Organization with Primary Management |
| may be encountered | Designation | SARA | Responsibility 1 |
| Peregrine Falcon (subspecies tundrius) | Special Concern | Schedule 3 | Government of Nunavut |
| Short-eared Owl | Special Concern | Schedule 3 | Government of Nunavut |
| Grizzly Bear | Special Concern | Pending | Government of Nunavut |

| Wolverine (Western | Special Concern | Pending | Government of Nunavut |
|--------------------------|-----------------|---------|-----------------------|
| Population) | | | |
| Barren-ground | Special Concern | Pending | Government of Nunavut |
| Caribou (Dolphin | | | |
| and Union | | | |
| population) ² | | | |

Environment Canada has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the *Migratory Birds Convention Act* (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Thus, for species within their responsibility, the Territorial Government is best suited to provide detailed advice and information on potential adverse effects, mitigation measures, and monitoring.

² The Dolphin and Union herd seasonally migrate across the sea-ice to winter on the mainland and to return to Victoria Island for calving, summer, and the rut. So, given the seasonal operation of the camp, these caribou may not be present in the project area at the time when the camp is in operation.

Impacts could be disturbance and attraction to operations.

Environment Canada recommends:

- Species at Risk that could be encountered or affected by the project should be identified and any potential adverse effects of the project to the species, its habitat, and/or its residence noted. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the Species at Risk registry at www.sararegistry.gc.ca for information on specific species.
- If Species at Risk are encountered or affected, the primary mitigation measure should be avoidance. The proponent should avoid contact with or disturbance to each species, its habitat and/or its residence.
- Monitoring should be undertaken by the proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, this monitoring should include recording the locations and dates of any observations of Species at Risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the proponent to avoid contact or disturbance to the species, its habitat, and/or its residence. This information should be submitted to the appropriate regulators and organizations with management responsibility for that species, as requested.
- For species under the responsibility of the Territorial Government, the Territorial Government should be consulted to identify other appropriate mitigation and/or monitoring measures to minimize effects to these species from the project.
- Mitigation and monitoring measures must be taken in a way that is consistent with applicable recovery strategies and action/management plans.

Should you have any further questions please contact myself, Savanna Levenson at (867) 669-4772 or via email at savanna.levenson@ec.gc.ca.

Yours truly,

Savanna Levenson Environmental Assessment Specialist Environmental Protection Operations

c.c: Carey Ogilvie, Head EA North, Environment Canada Anne Wilson, Water Pollution Specialist, Environment Canada