

IEMR Research

Highlights

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Economic Impact of Military Flight Training in Labrador and Northeastern Québec

In November 2000, the final report on the "Economic Impact of Military Flight Training in Labrador and Northeastern Québec" prepared by AMEC Earth & Environmental (AGRA) and Gardner Pinfold Consulting Economists Limited was accepted by the Board of Directors of the Institute. Upon recommendation from the Socio-Economic and In-Town Mitigation Committee, funding has been allocated to update this document and have it remain current.

Since 1994, military flight training activities in the Happy Valley – Goose Bay area have undergone changes through cost reduction, downsizing, and alternative service delivery (ASD). This study qualitatively and quantitatively assesses the economic impacts of military flight training on the Upper Lake Melville Area, Labrador, Northeastern Québec, and the province of Newfoundland and Labrador. Accordingly, this study:

- Tracks employment patterns (military and civilian) at CFB Goose Bay;
- Tracks direct expenditures of the Department of National Defence to businesses in Central Labrador.

- Estimates the indirect expenditures (i.e. income expenditures) of Base personnel, including the allied and Canadian military trainees in Central Labrador;
- Determines the induced benefits of the project, if any, in terms of economic diversification and training in Central Labrador;
- Provides a comprehensive statement describing the past and current economy of the region against which project impacts are identified and evaluated; and
- Reviews DND's mitigation measures as outlined in the 1994 Environmental Impact Statement.

The primary assessment tool used was an input/output model which uses data on direct impacts, estimates of indirect impacts, and induced impacts. In addition, key informants knowledgeable about both the military and the community were consulted. Their information helped in assessing economic effects of military flight training on various economic indicator sectors. This report focuses on economic impact; however, economic indicators, sector profiles, non-wage economy, and mitigation measures are addressed in the body of the report. Final copies of the report are available through the Institute's office.*

**Please read on for the
IEMR Research Highlights**

RESEARCH HIGHLIGHTS

❖ ASHKUISITES

In September 2000 the final report “*Ashkui* Sites in the Low Level Flying Training Area, Labrador” by Christopher Fletcher and Heather Breeze of the Gorsebrook Research Institute was received at the Institute. The findings of this report were presented and accepted at the November Board meeting and are available through the Institute’s office.

Ashkui are sites of open water on lakes, rivers, and the ocean when ice is present elsewhere. Some *ashkui* sites never freeze over and are open all winter. Others are the first openings in the ice that appear when the weather warms in spring.

Ashkui occur within the low-level flying training area in Labrador and during periods when low-level flying is occurring. A variety of wildlife species use *ashkui*, including many species of fish, waterfowl, and mammals. The significance of *ashkui* to the Innu people is partially related to the abundance of wildlife found there as well as the tradition of staying near *ashkui* sites in the springtime. This report demonstrates that low-level flying and *ashkui* coincide temporally and spatially and with undetermined effects on these environments and the people who use them. As is within its mandate, the IEMR is continuing to support future cultural landscape and *ashkui* related research. *

❖ SPRING STAGING WATERFOWL

In November 2000 the Board of the Institute approved a study on the “Effect of Low-Level Jet Overflights on the

Behaviour of Spring Staging Waterfowl in Central Labrador” a collaborative project of Canadian Wildlife Service, Institute for Environmental Monitoring and Research, and Department of National Defence. This study proposes to conduct the necessary field research in the spring of 2001 to statistically test hypotheses related to the effect of overflights on the behaviour of waterfowl in Labrador with objectives to (1) quantify the immediate response to overflights by spring staging waterfowl; (2) test for differences in the time activity budgets of waterfowl at a site exposed to low-level overflights compared to a site without low-level overflights; (3) develop statistical models of environment, time of day, and overflight parameters that are predictors of overt responses by waterfowl; and (4) compare waterfowl abundance at spring staging areas subjected to overflights and spring staging areas not subjected to overflights.

The CWS will be the lead agency in this project and may involve a graduate student as the person responsible for data analysis and the final report. The other partners will provide funding, study objectives, and scientific direction.

The study area for this one-year project would include Seal Lake and adjacent lakes near the Naskaupi River. This area has been identified as ideal for this study as (1) there are several *ashkui* in the area; (2) this area is well used by spring staging waterfowl; (3) Innu have a relatively large camp on Seal Lake and may be able to witness and participate in data collection; and (4) the area receives a relatively high number of overflights and a nearby camera target site may aid in facilitating scheduled overflights.

The primary deliverable from this project will be a detailed progress report in 2001 highlighting research hypotheses tested, field methodology,

statistical analyses, and data interpretation. Additionally, a videotape of field activities will be made available to the Institute. The final deliverable will be a manuscript for submission to a peer-reviewed scientific journal. *

❖ MOULTING BLACK DUCKS

Board approval has been given to Jacques Whitford Environment Limited for their proposal to investigate the “Response of Moulting Black Ducks to Low Level Jet Activity”. This multi-disciplined study team will quantify the activity/reactions of moulting black ducks using behavioural observations and measurements of heart rate through physiological telemetry systems.

The introduced stimulus will be low level military jet overflights described in terms of proximity, direction, speed, maximum, and average sound pressure levels (as recorded by hand held sound level meters). Natural and experimental conditions will be compared by examining activity budgets, heart rate level and possible recovery, and inference on energy expenditure compared to other natural stimuli. Opportunities for habituation will also be monitored.

Observations will be conducted during the moulting period in July and will utilize observation towers constructed by JWEL in 1999. The study team will include a trained Innu environmental field assistant will be involved in the collection and interpretation of environmental data.

At the completion of each observation period, progress reports will be submitted to the Institute. Additionally, a photographic and video record documenting the study will be maintained and provided. A final draft report will be submitted within six months of completion of field activities for review and comment before issuing a final report. *

CARIBOU AND MAN 9th North-American Caribou Workshop

**April 23 to 27, 2001
Kuuujuaq, Québec**

In April 2001, Kuuujuaq will be hosting the 9th North American Caribou Workshop. The objective is to look at caribou herd management as well as the relationship between man and beast. Program items include:

- Caribou and Man, A Long Time Relationship
- Traditional Ecological Knowledge and Scientific Information: Using the Best of Both Worlds
- Caribou and Human Activity: Industrial Development, Hunting, and Commercialization
- Population Dynamics and Behaviour
- The Future of Large Herds
- Nutrition, Physiology, Diseases, and Taxonomy
- Habitat Use, Movement and Activity

- Conservation, Husbandry, Management, and Co-Management

This workshop promises to be an exciting and interesting forum for an exchange of knowledge and ideas amongst renowned experts and leading researchers in the field. It is an ideal opportunity to catch up with old friends and colleagues or to meet new people who share respect for the caribou and the Arctic. Attention will be focused on the cultural and traditional knowledge of our First Peoples and to delve into the Inuit, Cree, and Naskapi Nation's long relationship with caribou.

Field excursions complement the program and will provide an opportunity to take in the majestic beauty of Nunavik and to experience the rich culture of its people.

This is a gathering you will not want to miss. Information can be obtained through:

*9th North American
Caribou Workshop
Telephone: 514-481-7408
Fax: 514-481-7379
e-mail: nacw@odon.ca
www.cccpp-hftcc.com/nacw*

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IN UPCOMING ISSUES:

- ➔ Resource Harvesting Planning Session
- ➔ The 9th North American Caribou Workshop
- ➔ Update on the Publication of the "Effects of Noise on Wildlife Conference" proceedings
- ➔ Managing Director of the Institute

IEMR Research Highlights

Information for this issue of the IEMR Research Highlights was provided and compiled by Institute staff. If you have any suggestions or comments or if you have information you would like to see included, please get in contact with Maureen Baker at the Institute's office. *

What's New?

- Ms. Judy O'Dell has moved from the area and will no longer be representing the Town of Happy Valley – Goose Bay on the Board for the Institute. Mr. John Chaisson assumed the seat in November 2000.
- During the November meeting of the Board of Directors in Churchill Falls Labrador, Board members enjoyed a tour of the Churchill Falls (Labrador) Corp. Powerhouse, the largest underground powerhouse in the world. The next meeting of the Board will take place March 2001 in Happy Valley – Goose Bay.
- Marlene Winters, Information Technology Specialist with the Central Labrador Economic Development Board Inc., has been hired to put a new look on the Institute's web site. The new site will be presented at the March 2001 Board meeting.
- The proceedings for the Effects of Noise on Wildlife Conference have gone for translation. These should be available by early spring.
- J. C. Bourque translation services can now be contacted at: jcbourqu@nbnet.nb.ca
- Staff members Thomas Jung and Tony Parr attended "The Ashkui Project Symposium – Knowledge, Culture, and the Innu Landscape" on January 25, 2001, in Halifax, Nova Scotia.
- Science Horizons Student, Alain Fontaine, has accepted a full-time position as a Wildlife Technician with Environment Canada in Iqaluit, Nunavut.

Socio-Economic and In-Town Mitigation Committee

The members of the Committee are:

Mr. Daniel Ashini, Innu Nation
Ms. Carol Best, Central Labrador Economic Development Board Inc.
Mr. Silas Bird, Community Liaison Officer, 5 Wing Goose Bay
Ms. Josée Brunelle, Naskapi Nation of Kawawachikamach
Mr. John Chaisson, Town of Happy Valley – Goose Bay
Mr. Stephan Fuller, Innu Nation
Ms. Hilda Letemplier, Central Labrador Economic Development Board Inc.
Ms. Isabella Pain, Labrador Inuit Association
Mr. Dennis Peck, Economic Development Officer, Town of Happy Valley – Goose Bay
Ms. Judy Rowell, Labrador Inuit Association
Mr. Carter Russell, Labrador Métis Nation

The first meeting of the Socio-Economic and In-Town Mitigation Committee took place in April 1998 with a purpose to investigate the issues related to the socio-economic impacts of low-level flying. The recommendation of the Committee was that a study be completed to update the socio-economic baseline data presented in the Environmental Impact Statement and to conduct an impact analysis at the local and regional scale to provide an overall picture of the economy associated with the military activities at 5 Wing Goose Bay.

In April 1999, the Institute Board of Directors allocated funding for a study on economic impacts of low-level flying with additional funding to scope out resource harvesting issues. The contract for the economic impact study was awarded to AMEC Earth and Environmental (AGRA) in November 1999. The consultant presented the draft copy of the report to the Committee in July 2000. After some revision and incorporation of Committee comments, the final report "Economic Impact of Military Flight Training in Labrador and Northeastern" and accepted by the Board in November 2000. The Board and Committee agree that it is necessary to keep the information in this document current as the economy of the area changes, and further funding has been budgeted for this. The Committee is presently discussing the issues relating to maintaining this report as a "living document".

In the past eighteen months much discussion has taken place on the necessity of a Resource Harvesting Workshop. The Institute has recently advertised the position of Project Co-coordinator to assist in bringing together those interested in resource harvesting activities for a planning session. The tentative date for the Resource Harvesting Planning session is March 2001.