

**MINASKUAT PROJECT NO. MIN0115**

**2005 BALD EAGLE NEST RECONNAISSANCE**

**FINAL REPORT**

**11 October 2005**

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**APPENDIX A            SUMMARY OF BALD EAGLE NEST ACTIVITY WITHIN THE LOW LEVEL  
TRAINING AREA OF LABRADOR AND NORTHEASTERN QUEBEC**



## **1.0 INTRODUCTION**

In response to an identified need to expand the current military training activities at 5 Wing Goose Bay, it is anticipated Supersonic flight training (and/or other training options) will become available to interested domestic and foreign air forces in the future. Pending approval by DND and appropriate other Federal and Provincial authorities and in consultation with other stakeholders, supersonic training could be permitted at approved altitudes along specific routes and/or in designated areas above the current Low-Level Training Area (LLTA also known as CYA 731). These new air ranges (known as CYA 732, CYA 733 or CYA 755) would permit super-sonic flight training at altitudes above the current limits for sub-sonic flight at 5,000 'agl.

In preparation for such future initiatives and the anticipated need for future related environmental effects monitoring, a survey program was initiated in the LLTA for active nests of Bald Eagle (*Haliaeetus leucocephalus*), considered a Valued Ecosystem Component in the Study Area (DND 1994).

Minaskuat Limited Partnership and formerly Jacques Whitford have conducted aerial surveys for raptor nests in the general LLTA and adjacent areas since 1987 (LFA 1992; JWE 1992, 1994, 1995; JWEL 1996a, 1996b, 1997, 1998). The objective of the 2005 surveys was to re-examine previously known, and locate new, Bald Eagle nests in areas of suitable habitat, assessing nest status and condition. Active nest sites were documented for consideration when planning future super-sonic environmental effects monitoring studies.

## **2.0 STUDY TEAM**

Mr. Perry Trimper (Jacques Whitford) served as project manager for the field and written components of this Project. Ms. Karen Rashleigh was involved in the field program and also served as primary author. Ms. Shirley Hill and Ms. Mary Ann Aylward also assisted with data collection (field surveys). Mr. Geoff Goodyear, Mr. Peter Jefford and Mr. Lorne Boone [Universal Helicopters Newfoundland Limited (UHNL)] were selected as pilots based on their experience during previous aerial surveys. Note that for safety and logistical reasons, pilots familiar with raptor behaviour to helicopters and experienced in raptor/nest identification in areas of extreme vertical relief, were used.

## **3.0 STUDY AREA**

Much of the overall habitat in the LLTA can be characterized as forested. Some sporadic cliff (generally <200 m elevation) habitats exist, however forested habitat occurs throughout in either rolling topography, large rivers with forested valleys, or wetland complexes. The main area of interest (*i.e.* where locations of Bald Eagle are known to occur), comprises up to five ecoregions - primarily the Smallwood Reservoir-Michikamau ecoregion, but also includes the Kingurutik-Fraser River, Mecatina River, Lake Melville, and Winokapau Lake North ecoregions (ESWG 1995). Within the overall Study Area, there is a transition from tundra and alpine communities in the north to closed-cover coniferous boreal forests to the south. The main areas of interest include the Smallwood Reservoir and adjacent (beneath CYA 732), some locations beneath CYA 733 (including Minipi Lake) and locations for possible control (regarding supersonic flight) beneath CYA 731 and CYA 755 along the Churchill River.

## 4.0 METHODS

Known and encountered nests were investigated using an inventory maintained on 1:50,000 topographic map sheets, during 20-22 June 2005. Flights were conducted when weather conditions provided at least 6.5-8 km visibility, light winds, and greater than 600m cloud ceilings. Consistent with previous effort, a Bell 206 Long Ranger was used, with one navigator/observer and at two rear observers (one of whom was tasked as data recorder). In addition to revisiting known sites, the Study Team also searched for other indicators of raptor activity and during earlier surveys for Osprey noted Bald Eagle activity during 8-10 June when encountered.

Note that the majority of effort was to revisit known locations as previous effort in this regard has been extensive. However, on a few occasions (e.g. when ferrying between known locations) a survey route would fly 500 to 1,000 m from the shoreline of a major river or large water body, or along the centre of smaller rivers and inlets/outlets of lakes. Surveys in forested habitats were conducted at heights of 50-100m above ground level and at speeds of approximately 100 km/h. Based on the experience of the Study Team, attention focused on higher points of land within the area of coverage and trees adjacent to smaller tributary streams, and in particular, large Eastern Larch (*Larix laricina*) or White Birch (*Betula populifolia*). Note that prior to the survey, the Study Team was aware of several Bald Eagle nests on large rocks, particularly east of the Smallwood Reservoir. These features were also investigated.

When potential active nests were identified, a series of successive passes were made to establish the nest contents, including presence and number of eggs or approximate age of nestlings and their condition. Note that any unnecessary disturbance to nesting raptors was minimized by vacating the area as soon as possible.

## 5.0 RESULTS

The Study Team worked with 36 current and formerly known Bald Eagle nest sites in the Study Area (Appendix A). Nine (25.0%) of these sites were active Bald Eagle nests, eight were empty (22.2%), two (5.6%) were occupied by another species (*i.e.* Gull sp. or Osprey), two were collapsed (5.6%), and no evidence of a nest structure could be located at 15 (41.7%) locations. Note that a similar inventory of known Bald Eagle territories in 1998 identified 16 (48.4%) active nests of 33 investigated (JWEL 1999).

At least six (6) of the nine active nests identified in 2005 have potential, with respect to accessibility (helicopter landing and observer vantage locations) for future behavioural monitoring studies (Appendix A).

The remaining three active nests were identified during Osprey nesting surveys in early June, and thus were not thoroughly assessed with respect to the goals of this field program. However, the majority of the empty nests were in good condition and also easily accessible, in terms of future research initiatives, and should be considered (revisited) prior to future planning.

## 6.0 CLOSING STATEMENT

Bald Eagle nests were identified in 2005 that provide both suitable helicopter landing sites and observation locations. In terms of future research initiatives, selection of nests sites should focus (but not be limited to) the nine confirmed active nests located during this field survey. Given their proximity to water, blinds can easily be erected at the majority of nest sites (*i.e.* relatively quickly and with minimal disturbance). Thus blinds can be set-up prior to monitoring in the Spring, once active nests have been confirmed.

## 7.0 REFERENCES

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