

**MINASKUAT PROJECT NO. MIN 114**

**2005 GOLDEN EAGLE NEST RECONNAISSANCE**

**FINAL REPORT**

**6 October 2005**

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## 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, both within and adjacent to the current Low-Level Training Area (LLTA). This new air range would permit supersonic 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 Golden Eagle (*Aquila chrysaetos*), considered a Valued Ecosystem Component in Labrador (DND 1994).

Minaskuat Limited Partnership (and formerly Jacques Whitford) has conducted aerial surveys for raptor nests in the general LLTA and adjacent areas since 1987. The objective of the 2005 surveys was to re-examine previously known and locate new Golden Eagle nests in areas of suitable habitat, and to assess nest status and condition. Active nest sites were documented for consideration when planning future supersonic environmental effects monitoring studies.

## 2.0 STUDY TEAM

Mr. Perry Trimper served as project manager for the field and written components of this Project. Ms. Karen Rashleigh was involved in the field program and was responsible for report preparation. Ms. Shirley Hill and Mr. Geoff Goodyear (also participating as helicopter pilot during surveys) assisted with data collection (field surveys). Note that for safety and logistical reasons, a pilot (i.e. Mr. Goodyear) familiar with raptor behaviour to helicopters and experienced in raptor/nest identification in areas of extreme vertical relief, was used.

## 3.0 STUDY AREA

The study area encompassed known Golden Eagle nests and suitable habitat in within the current LLTA of Labrador and northeastern Québec. 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 dominates in either rolling topography, large rivers with forested valleys, or wetland complexes. 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. Note that areas of potential and actual habitat for cliff-nesting raptors are well-known by the Study Team.

## 4.0 METHODS

Prior to departure, a list of known Golden Eagle nests (latitudes/longitudes) was compiled, based on information collected during previous monitoring programs (JWEL 1996a, 1996b, 1997, 1998; JWE 1992, 1994, 1995; LFA 1992) and information obtained through the IEMR. An efficient survey route (flown via helicopter) was chosen to maximize nests encountered while minimizing travel distance/time (and subsequently cost). In addition to revisiting known sites, the Study Team also searched for other indicators of cliff nesting raptors.

The survey team consisted of one navigator/observer, two rear observers, plus pilot/observer. (Note that all members of the proposed Study Team had previously completed aerial raptor surveys). The pilot and the navigator/observer were the same individuals who completed the earlier work during the 1980s and 1990s and have over 1500 hours of experience for the target species in this study). Surveys were conducted only when weather conditions provided at least 6.5-8 km visibility, light winds and greater than 600m cloud ceilings. Cliff areas with suitable nesting or perching habitat were searched at speeds of approximately 50-100 km/h, while maintaining a distance of at least 30 m from the cliff face.

The presence of fresh nesting material on any cliff face, recent accumulation of bird droppings on or surrounding the nests (“whitewash” on rock face), pairs of raptors, displays of aggressive behaviour by an individual raptor or apparent reluctance to leave an area were considered indicators of an occupied territory or nest. 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. However note that any unnecessary disturbance to nesting raptors was minimized. The study team also investigated potential helicopter landing and nest observation sites, should future effects monitoring studies be required.

Note that as there is a ‘black market’ trade that targets the capture and distribution of Golden Eagle young and adults (domestically and internationally). As such, actual nest locations are presented in a supplementary appendix (Appendix A) that is not to be distributed to the public – at the request of the Province of Newfoundland and Labrador.

Following the nesting season, observation blinds were located at three Golden Eagle nest sites to provide a suitable platform for future effects monitoring programs. These sites were selected based on proximity to the proposed super-sonic activity, past raptor activity and ability to access. Landing sites for the helicopter and frames for each blind were prepared during October 2005.

## 5.0 RESULTS

Nine nesting sites and adjacent habitat within areas of high potential of occurrence (e.g. Churchill River, Shapio Lake Area, Red Wine Mountains, Kanairiktok River, and other areas north and north-west of Happy Valley-Goose Bay) were investigated on 28 and 30 June 2005. During this period, the Study Team was able to locate and confirm three active Golden Eagle nests – one on the Kanairiktok River and two on the Churchill River, and an additional two nests believed to be that of Golden Eagle, representing approximately 33% activity (Appendix A). No other raptors of special interest were known to occur (JWEL 1996a, 1996b, 1997, 1998; JWE 1992, 1994, 1995; LFA 1992) or observed in the Stud Area during this investigation.

Three observation blinds and associated helicopter landing sites were constructed for future effects (behavioural) monitoring studies (Appendix A). The first on the Kanairiktok River will require the use of specialized video equipment to actually view the nest from above. Otherwise, the site may be accessed by helicopter from an angle that wouldn't be visible to the nest. The second location further west on this river was a previously occupied nest site that was empty in 2005 but believed to be a likely location for future nesting activity. This site has similar unobtrusive access and unrestricted visibility from the blind. The third location is approximately 5 minutes south and also allows acceptable access and visibility. Observation blinds were not constructed for the two nests located on the Churchill River as they occur outside of the preferred super-sonic range. It should be noted that both provide relatively unobstructed vantage points, however access to one site involves a relatively lengthy walk and the observer would have to view the nest from above, along the cliff overhang (Appendix A).

One other suspected (but unconfirmed) active Golden Eagle nest near Thomas River would be outside the area for anticipated super-sonic activity. This location would be relatively more difficult, though not impossible, to access.

## 6.0 CLOSING STATEMENT

Golden Eagle nests were identified in 2005 that provide both suitable helicopter landing sites and observation (blind) locations. Observation blinds were constructed at two of these locations with a third established at a site known to have been repeatedly occupied in previous years. The remaining three Golden eagle nests occur outside the proposed area for super-sonic flight but may be used for other purposes such as collecting data from animals not exposed to this activity.

## 7.0 REFERENCES

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