



# United States Department of the Interior

## NATIONAL PARK SERVICE

Wrangell-St. Elias National Park / Preserve

P.O. Box 29

Glennallen, Alaska 99588



IN REPLY REFER TO:

N1427 (WRST-RM)

3 October 1991

### MEMO

To: Mentasta Caribou Files

From: Kurt Jenkins, Wildlife Research Biologist, WRST

RE: Mentasta Caribou Herd: 1991 Fall Composition and Estimated Population Size

On 1 October 1991 Bob Tobey (ADFG), Mark Masteller (ADFG), Bill Route (WRST) and I conducted composition surveys of the Mentasta Caribou Herd. Tobey, Masteller and I flew in a Hughes 500D helicopter piloted by Ken Barnes of Soloy Helicopters. Tobey conducted all composition counts while Masteller and I looked on. Bill Route flew with Harley McMahon in a supercub to spot caribou herds, which were then classified from the helicopter.

We departed from the airstrip at Duffey's Tavern at approximately 11:00 am. We had partial overcast, and 5-15 mph winds from the south. Overall, conditions were excellent for the survey. Survey techniques were identical to those described for the summer composition survey (July 6, 1991, Mentasta Caribou Files). Caribou were classified from approximately 7 aggregations of 20-150 caribou each. Aggregations were distributed from Drop Creek to slopes southwest of Boulder Creek. The majority of caribou were classified from Moose Point, east of Boulder Creek, to a point 5-8 miles southwest of Boulder Creek. One pack of 11 wolves (9 greys and 2 blacks) was spotted southwest of Boulder Creek in the tundra. McMahon believed it was the same group that formerly consisted of 12 wolves, one of which he believes was shot by a moose hunter.

A total of 456 caribou was classified (approximately 24% of herd) including 316 cows, 133 bulls and 7 calves. Those numbers yield the following composition ratios:

42 bulls:100 cows

2.2 calves:100 cows.

Fall composition counts, therefore, confirm early summer composition counts which indicated almost complete recruitment failure of the Mentasta Caribou Herd.

**Calculation of Final Fall Population Estimate for Mentasta Caribou**

(computed following Lieb et al. 1989. Population Dynamics of the Mentasta Caribou Herd. Alaska Dep. of Fish and Game, Division of Wildlife Conservation, Research Progress Report. Page 39)

|                                                      |                                    |
|------------------------------------------------------|------------------------------------|
| Total Post Calving Count (18 June 1991)              | 1700                               |
| Summer Composition Counts (28 June 1991)             | 485 cows<br>114 bulls<br>16 calves |
|                                                      | =79% cows                          |
| Post-calving Cow Base ( $1700 \times 0.79$ )         | 1343 cows                          |
| Fall Bull Composition (1 Oct. 1991)                  | 42 bulls:100<br>cows               |
| Fall Calf Composition (1 Oct. 1991)                  | 2.2 calves:100<br>cows             |
| Fall Bulls ( $1343 \times 0.42$ )                    | 564 bulls                          |
| Fall Calves ( $1343 \times 0.22$ )                   | 30 calves                          |
| Total Fall Population Estimate ( $1343 + 564 + 30$ ) | 1937 caribou                       |

cc: Tobey  
Gall, pear  
Rovte  
Wells.