

AERIAL SURVEY OF MUSKRAT HOUSES,  
PEACE-ATHABASCA DELTA, FALL, 1974

Alan R. Smith

Canadian Wildlife Service

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A Cessna 185 was used to conduct the aerial survey which lasted from October 30 to November 6, 1974. The entire Delta was covered requiring approximately 32 hours of flying time. The survey was flown at height 200 feet above surrounding terrain and at a ground speed of 80 miles per hour. Results were recorded on a 1:250,000 outline map of the Delta (see Figure 1.)

The 1974 aerial survey recorded 9,396 muskrat houses in the Delta, an increase of 16 percent over the 1973 aerial survey. As indicated in Table 1 (below), increases in house numbers occurred in all three governmental jurisdictions in the Delta.

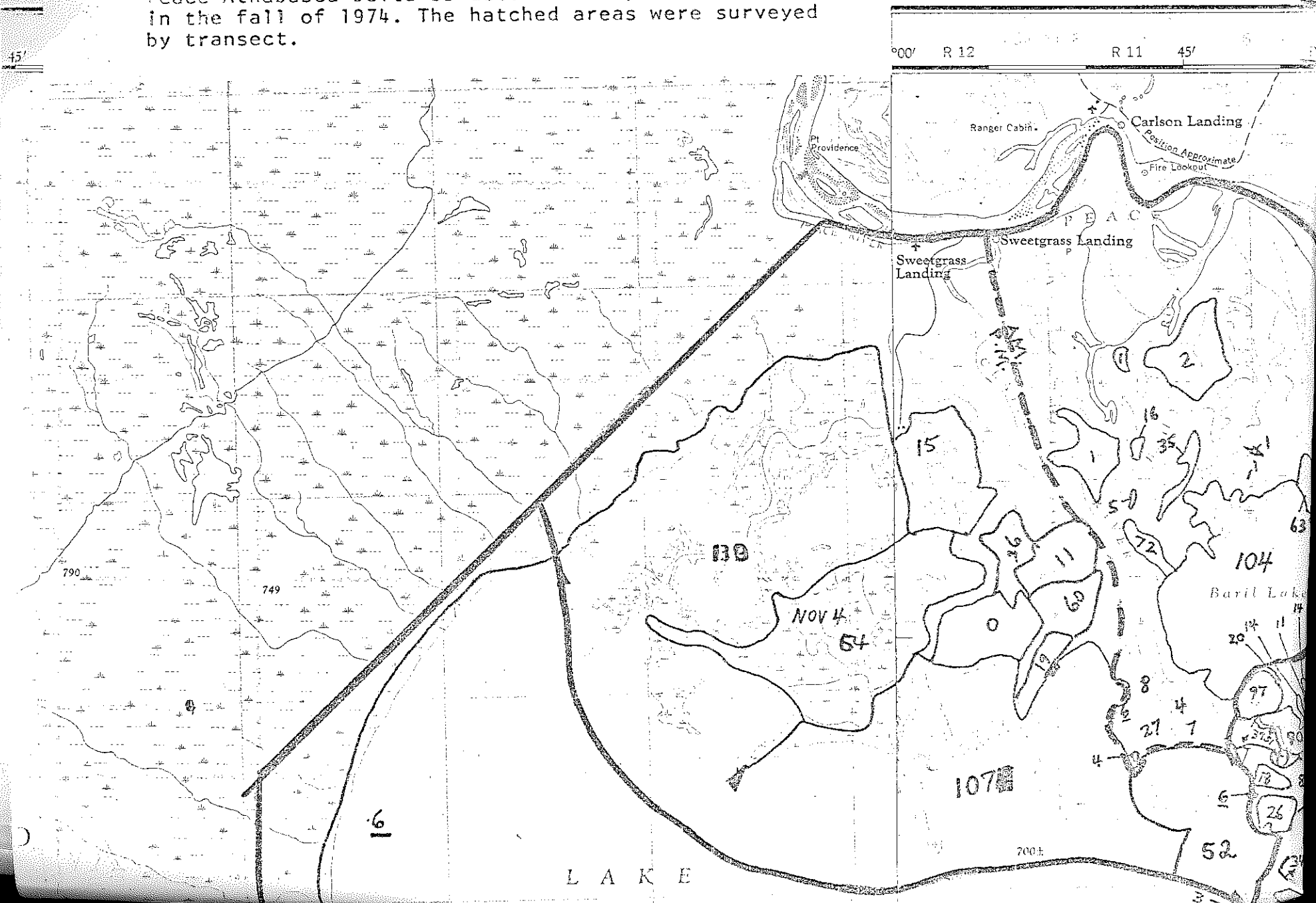
Muskrat Houses Recorded by Jurisdiction Based on  
Aerial Surveys in Fall of 1971, 1973 and 1974

JURISDICTION	YEAR		
	<u>1971</u>	<u>1973</u>	<u>1974</u>
Wood Buffalo N.P.	921	5442	5995
Chipewyan Reserve	1510	1589	2306
<u>Alberta Portion</u>	<u>1163</u>	<u>1046</u>	<u>1095</u>
TOTAL:	3594	8077	9396

Because an unknown number of houses are missed on an aerial count, a complete ground count of a representative sample of muskrat habitats must be conducted to make the proper adjustments to the aerial count. The adjustments vary from year to year due to a number of variables (i.e. water levels, visibility, snow cover, type of aircraft used).

The increase in the number of houses counted in this year's aerial census over previous years could be real, but this must be verified by ground sampling which will commence shortly. Thus the present results are subject to revision.

FIGURE 1. The distribution of muskrat houses in the Peace-Athabasca Delta as determined by aerial census in the fall of 1974. The hatched areas were surveyed by transect.





1:250,000

# CANADA

30' R 9

R 8 15'

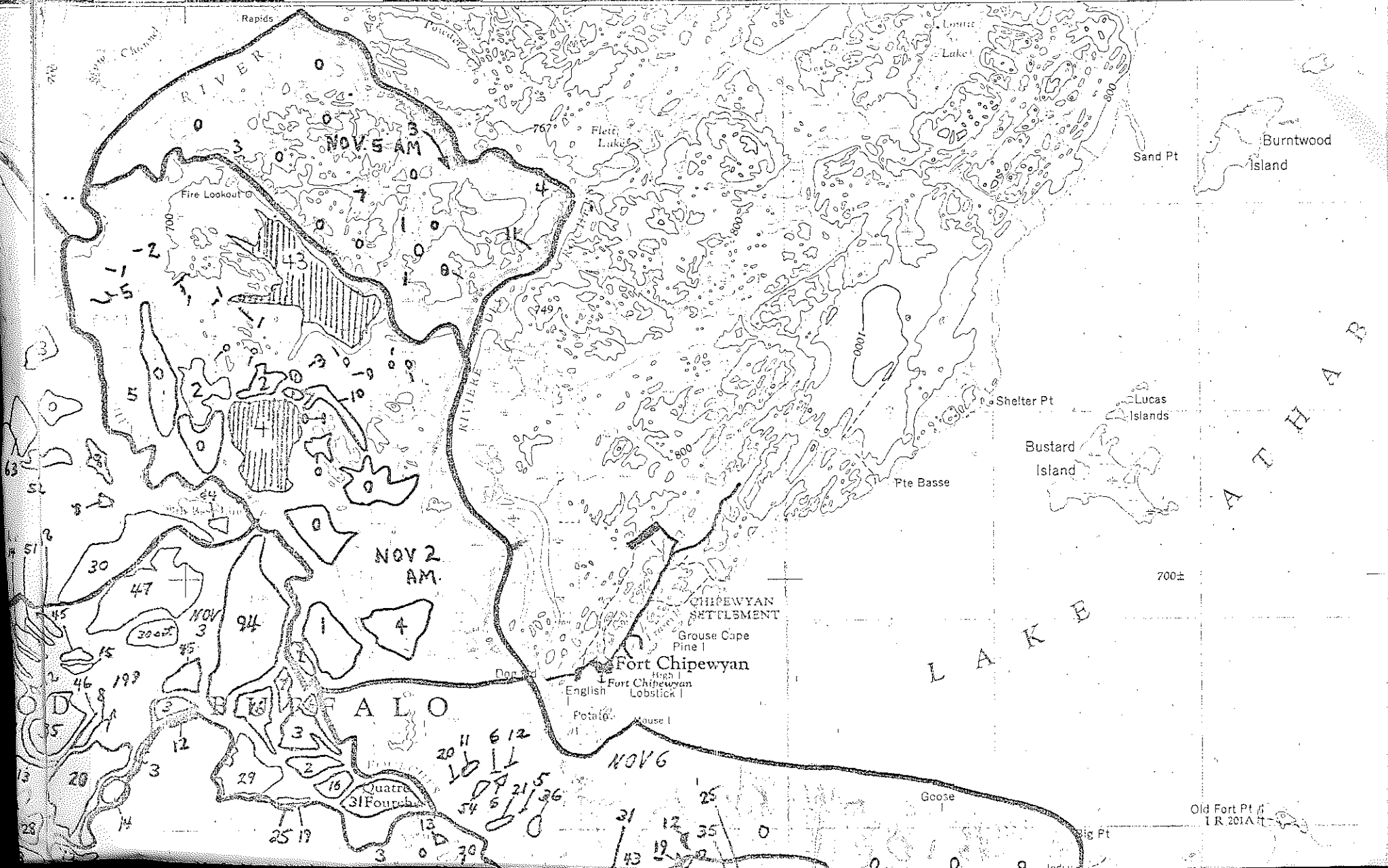
R 7

111°00' R 6

R 5 45'

R 4

30



Old Fort Pt is  
1 R 201A

