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A REPORT ON THE WHITE-FRONTED GOOSE BANDING PROJECT IN ALASKA 1975

BY

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During the period June 26 - July 16, 1975 the crew of Ray Tremblay, Don Combs, Don Frickie, Max Traweek and myself conducted a whitefront banding project on the lower Koyukuk River and on the North Slope near POW-I (Lonely Dew Line site). Wes Moholt also assisted for the first few days.

Number of Whitefronts Banded By Age-Sex

	<u>Local</u>	<u>Second Yr. M</u>	<u>SYF</u>	<u>After SYM</u>	<u>ASYF</u>	<u>Total</u>
Koyukuk River	163	85	95	127	107	577
North Slope	-	88	56	373	245	762
Total	163	173	151	500	352	1,339

We also banded 86 adult Canada geese on the North Slope (46 males, 40 females). Nearly all of the males appeared to be second year birds (penis sheath not fully developed).

WATERFOWL OBSERVATIONS

The attached Maps 1 - 4 present locations of geese observed and Table 1 lists number of birds at each location by species. The dashed lines on the maps delineate the approximate limits of aerial coverage. The X on Map 3 denotes the location of an oil well. The B's on Maps 2 - 4 depict banding locations. Banding locations are also noted in Table 1.

The numbers of geese in Table 1 must be considered as minimum figures for a number of reasons. Good goose survey figures can only be achieved by a goose survey, not as incidental to a banding project. For example, we looked mainly at areas where capturing birds was feasible--not on the small brushy streams in the Koyukuk Valley where no doubt many broods were. I also suspect

that many broods are hatched upstream on small creeks and then swim down to river oxbows where they group and fledge. For this reason a goose survey should be made in late July to insure that all broods which are going to oxbows are there.

It was usually impossible to ascertain individual brood sizes because broods and adults tend to mix in sometimes large flocks. I was able to count 6 individual broods which averaged 4.8 young/brood.

On the North Slope about 50% of the whitefronts, 70% of the Canadas and 25% of the black brant were molting when we arrived July 6. Many geese (especially brant) moved into the area after July 6. This was especially evident on July 13, after we had spent 4 1/2 days weathered in. To obtain optimum results on the North Slope, a survey should be made when nearly all geese are molting, probably sometime after July 15. This possibly varies by year, however. The North Slope was 7 - 10 days "late" this year.

Tremblay and Combs both feel there were substantially fewer whitefronts in both areas than they saw in 1973 (Koyukuk Valley) and in 1970 and 1971 (North Slope). For example, in 1973 they banded about 300 young at the mouth of the Kateel River. We found no geese of any age within 5 miles of the Kateel. Ray remembered that some of the adults captured in 1973 on the Kateel had been banded in past years on the Innoko River. He speculated that perhaps the birds with young were actually Innoko birds and had stopped on the Innoko in 1975. "Leapfrogging" of nesting sites some 200 miles would be strange goose behavior indeed. However, Cal Lensink thinks this may occur with black brant between the Y-K Delta and areas to the north and west, depending on the weather conditions on the delta when the geese arrive.

Only one group of whitefronts in the Koyukuk Valley was seen on an oxbow that did not have a channel connecting it to a flowing stream. All other

birds were on small streams or on oxbows that had one or two channels connecting it to moving water. This leads to speculation that broods swim into the oxbows.

We did document one movement of adults and young. On July 2, we banded birds on the Dulbi River. On July 4, many of these same birds were recaptured in an oxbow down river about 2 1/2 miles. The disturbance may have caused the birds to move, however. They were much more difficult to capture the second time than the first!

Seemingly good nesting habitat surrounded almost all river oxbows--if Carex and Equisitum provide good nesting cover. However, the numerous bears seen around many oxbows would create a problem for nesting birds. Sedge and horsetail bands were generally 30 - 50 yards deep around each oxbow.

There seemed to be a correlation between black bears and whitefronts! Almost always from 1 to 5 bears could be seen fairly near each group of birds. On July 4, we saw 16 blacks and 1 grizzly on a 10 mile segment of the Dulbi River. Moose were also very abundant in the entire flood plain.

On July 4 -the last day we captured young - about 75% of the birds were class I and the others were IIa.

Only five broods of Canada geese were seen in the Koyukuk Valley, all located within 2 miles of each other. I had previously thought this area supported a substantial Canada goose population.

Although we saw numerous large flocks of male ducks which were primarily wigeons, (especially on the Koyukuk and Yukon Rivers), I did not see any duck broods. I don't think any of the other crew members did either. River oxbows appear to offer optimum nesting conditions, (good cover plus fertile invertebrate-filled water); however, ground predators no doubt present a problem. Flooding in some years precludes good nesting sites, but Jim King

did not report significant flooding this spring on the Koyukuk. Ground work here is warranted because the area looks like some of the best dabbling nesting habitat in Alaska.

On the North Slope we saw no broods of whitefronts or Canadas, but 3 broods of snow geese were observed. At location 9 on Map 2 the island in the lake had perhaps 100 active brant nests. No brant broods were observed. It is again emphasized that a project to specifically survey geese would result in much better population size and productivity data.

Many of the lakes that whitefronts were molting on in 1970 and 1971 were void of whitefronts this year. This may be because of more extensive ice cover this year than previously. However, Canada geese were found on practically every large lake that had some open water. According to Tremblay and Combs, there just weren't the whitefronts in the Lonely area that there were in 1970 and 1972.

The number of Canada geese in the Lonely Area is certainly impressive. Indications are that these birds are subadults from breeding populations to the south. Should the need arise, large numbers of Canadas could be banded (unfortunately only adults) with relative ease in a short period of time.

On July 13, we captured over 650 whitefronts in a single drive. Surprisingly over 5 percent of these birds had been banded in 1970 or 1971 near the 1975 banding site. These birds were readily identified by their monel bands.

Of the 762 birds banded on the North Slope, 81 percent were aged ASY and 19 percent SY. This compares to 57 percent ASY and 43 percent SY in the Koyukuk Valley.

These two factors - high return rate and preponderance of ASY birds - indicate this population of geese is perhaps inherently unproductive. We

did, however, find about 5 females with brood patches out of 245 ASY females banded on the North Slope. About 30% of the ASY females banded in the Koyukuk Valley had brood patches. There is no problem in telling SY from ASY birds in July.

I have a new respect for whitefronts. Unlike gadwalls which are difficult to capture but easy to hunt, whitefronts are difficult to hunt too! The first two or three drives - until we got it all together - ended in nearly complete chaos. Unfortunately Ray's well chosen expletives were unable to turn the geese after they decided to escape.

There are some tricks to catching whitefronts, of which Tremblay and Combs are well aware. However, if a helicopter would work as well on whitefronts as it does on Canadas, it offers some advantages over conventional drive trapping.

Probably the biggest advantage is that more young could be captured. Smaller areas could be worked and the whole operation could be done in less time. With a chopper the geese could be kept much closer to the trap site while a pen and the leads are being erected. As it is now, the geese often swim over a mile away from the activity. This distance is a major factor in losing young as the goslings tire and become impossible to drive if the distance is too great.

Although a chopper would make the operation easier on the North Slope, adequate numbers of adults can be captured there with conventional equipment. The additional expense for a helicopter operation probably wouldn't be worth it.

However, in the Koyukuk Valley, one day of fixed wing survey and 3 - 4 days of chopper time could well produce 500+ young banded (if a helicopter is usable for driving whitefronts). Of course this year even finding 500

young to band was impossible.

We found no tule geese.

It appears to me that it will be most difficult to band large numbers of young with consistency each year. From what various people have told me, the Koyukuk area has the greatest concentration of young birds anyone has seen in Alaska. Pete Shepherd is constantly finding broods far up small, brushy streams in Interior Alaska. As he has said, in aggregate these areas probably contribute the bulk of whitefronts from Alaska.

My recommendation for next year is to again use a 5 man crew; spend one day locating broods in the Koyukuk Valley; and then try a chopper. It will only take one day to find out if it will work. If it does work, it will only take 3 - 4 days to catch the catchable young in the area.

We were somewhat disgusted with the lack of environmental protection being given to the area around the dew line site and the test oil well near Cape Halkett. If this same kind of operation is continued and expanded, large numbers of geese will be lost. We have reported what we saw to appropriate State and Federal agencies.

TABLE 1

Locations of geese observed, June - July 1975, corresponding to Maps 1 - 4.

<u>Location No.</u>	<u>Whitefront</u>	<u>Canada</u>	<u>Brant</u>	<u>Snow</u>
1	45 + 5 broods			
2	100 + 4 "			
3	13			
4	40			
* 5	300 + 25 "			
* 6	125 + 5 "			
* 7	150 + 6 "			
8	50 + 5 "			
* 9	80 + 8 "			
10	25			
*11	80 + 12 "			
12	70 + 10 "	10 + 5 broods		
*13	45 + 3 "			
14	80			
15	8 + 4 "			
16	4 + 2 "			
17	40 + 1 "			
18	80			
19	8 + 4 "			
20	4 + 2 "			
21	40 + 2 "			
22	200			
<hr/>				
Total Koyukuk (Map #1)	1567 + 98 broods	10 + 5 broods	-	-
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1		350		
2		200		
3		300		
4	60			
* 5	75	100		
6	30			
7	75	200		
8		1600		
9	25	1500	575	10
10		1500		
11			250	
12		900		
13			160	10 + 3 broods
14		700		
15		500		
16		300	200	
17		1800	450	
18		130		
19		170		
20		75		

TABLE 1

Locations of geese observed, June - July, 1975, corresponding to Maps 1 - 4.

<u>Location No.</u>	<u>Whitefront</u>	<u>Canada</u>	<u>Brant</u>	<u>Snow</u>
21		450		
22	45			
23		1300	110	
24		600	200	50
25		150		
26	170			
27		1350		30
28	70			
*29	1000	2190	145	15
30	20	925	150	
31		5		
32		10		
<hr/>				
Total Lonely Area (Maps 2 - 3)	1570	17,305	2,240	115 + 3 broods
Total geese = 21,230 + 3 broods				
<hr/>				
1	80			
2	4			
3	100			
4	40			
5	30			
* 6	130			
7	5			
8	12			
9	50			
10	30			
11	25			
<hr/>				
Total Coleville (Map 4)	506	-	-	-
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* = Banding Locations

White-fronted Goose Banding Report Distributed to:

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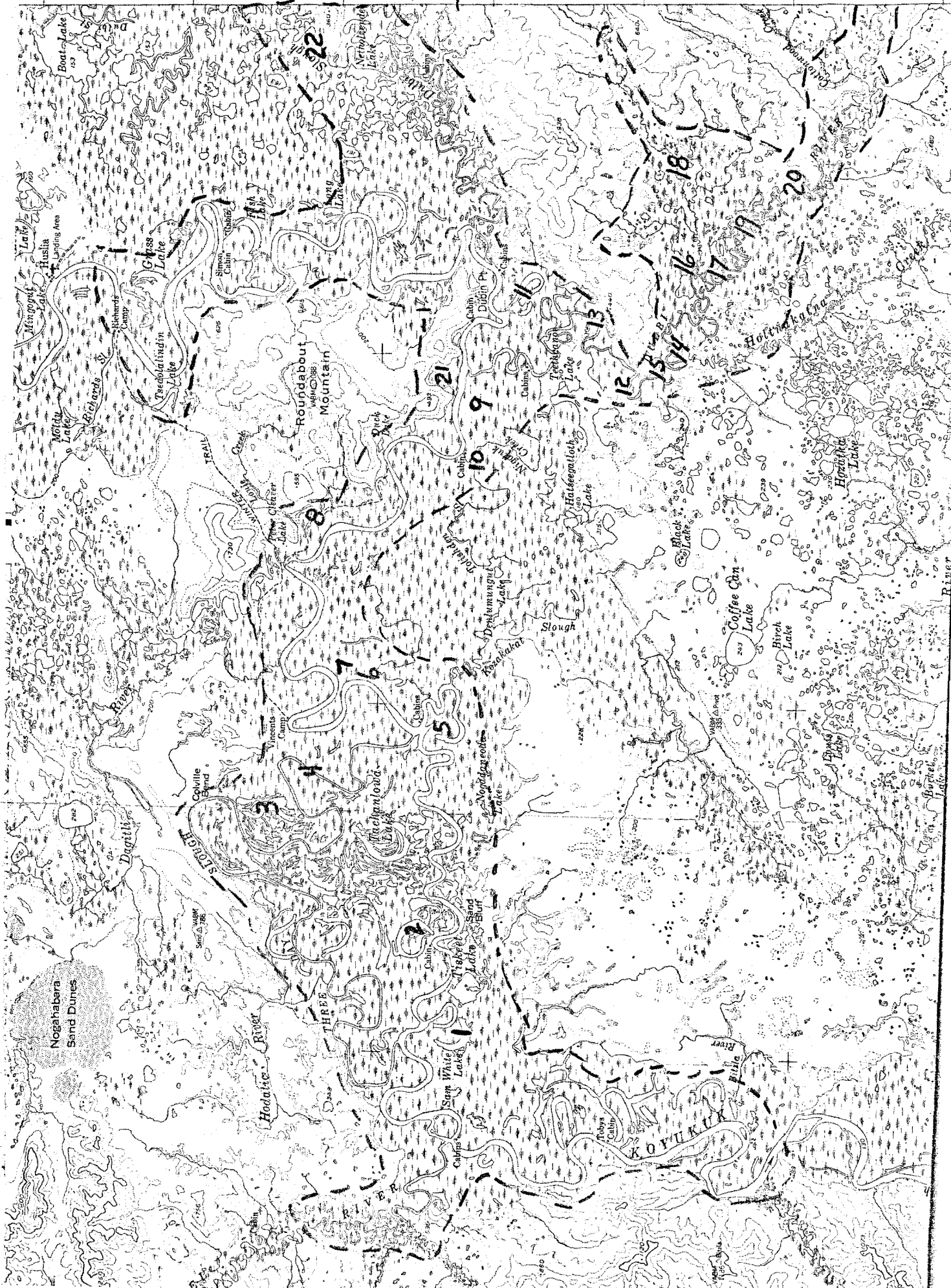
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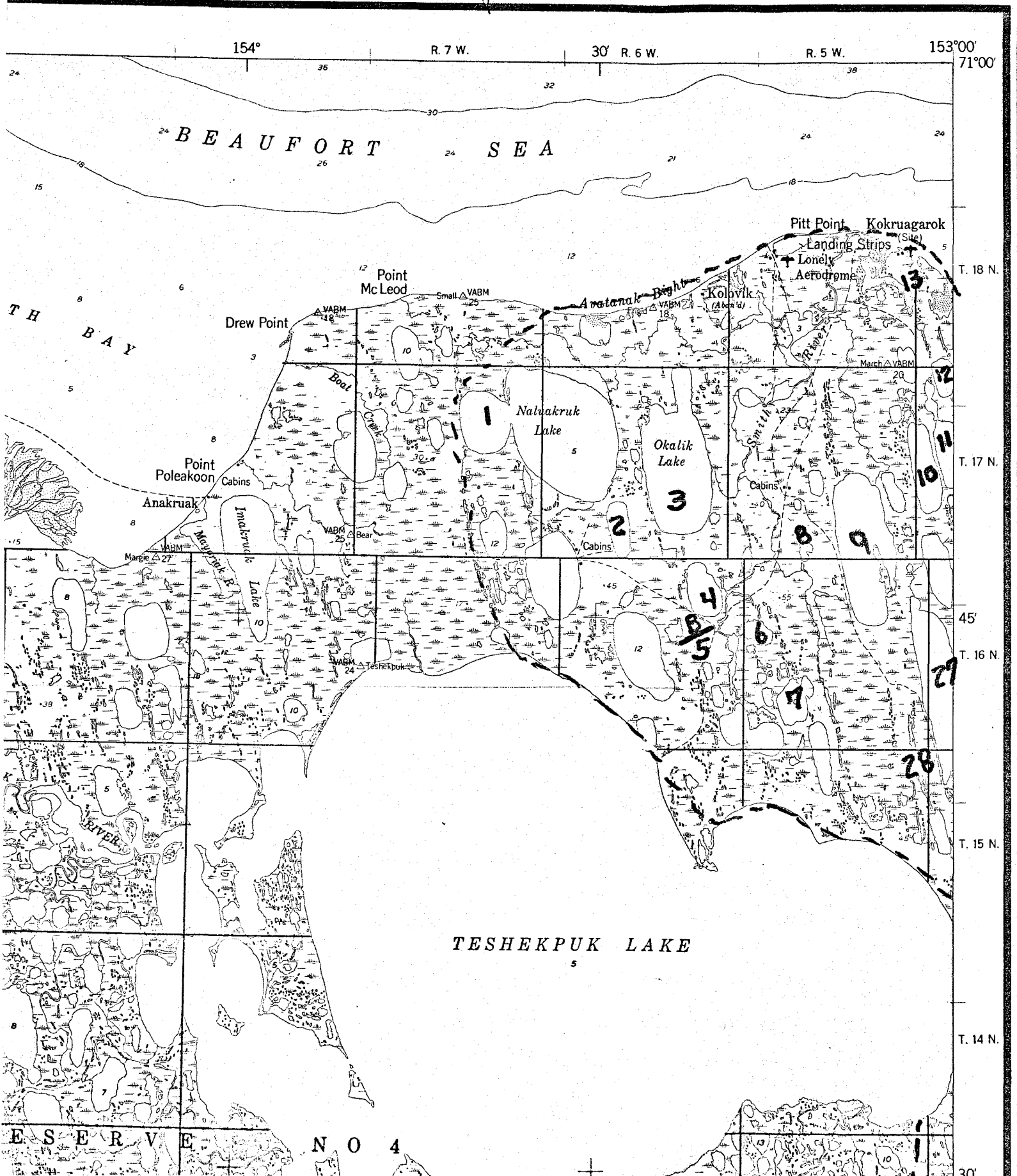
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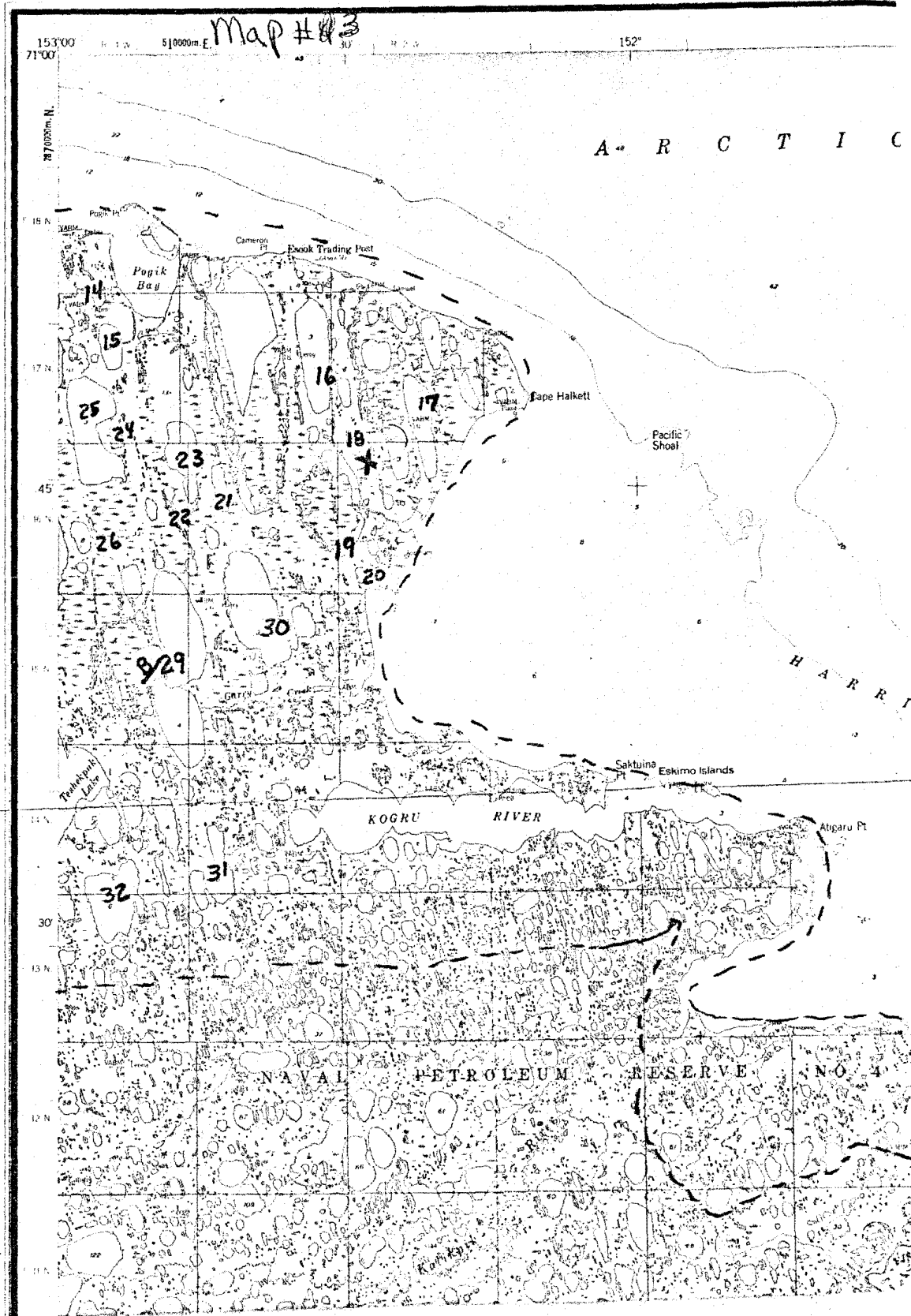
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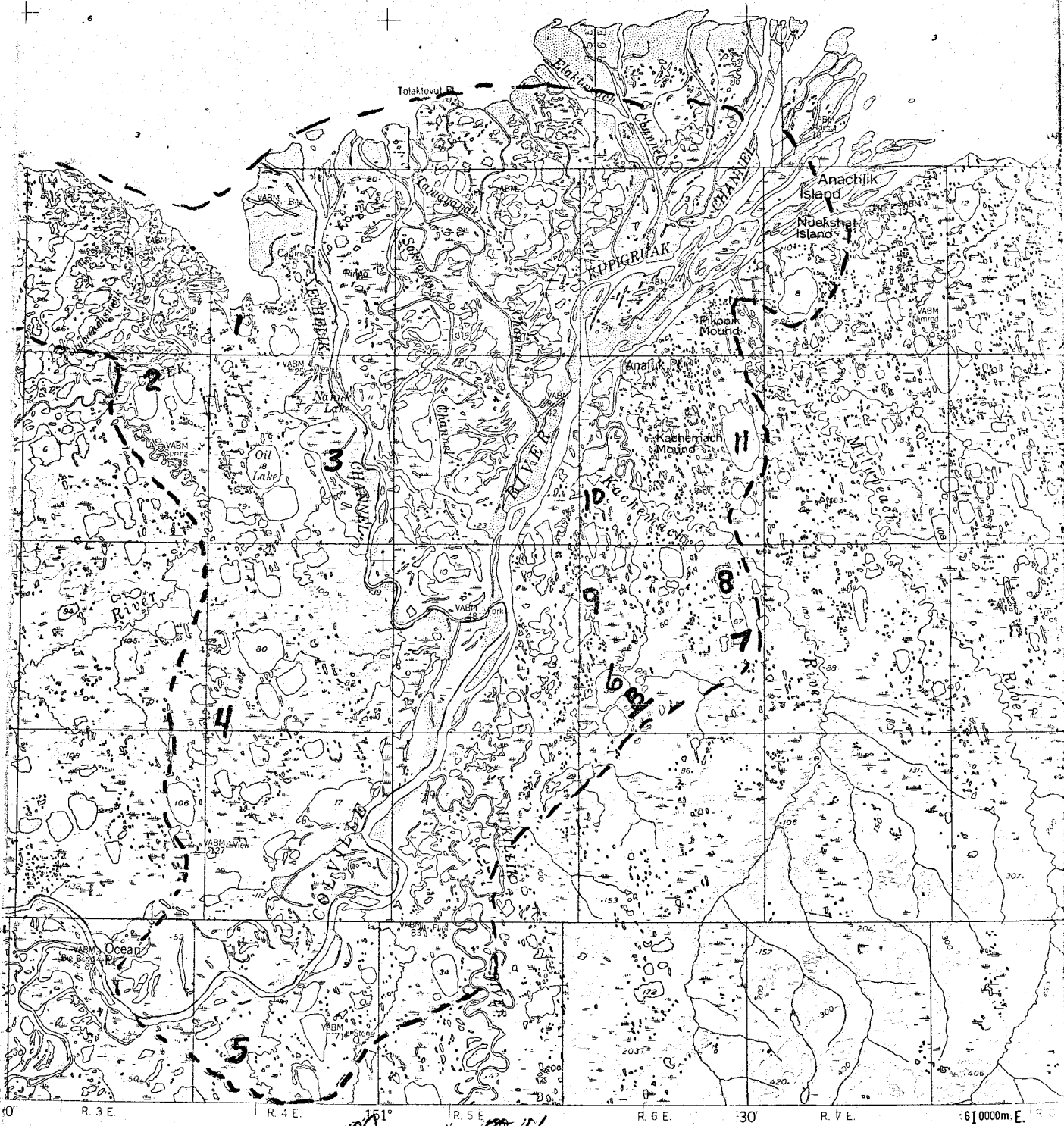
Map # 2



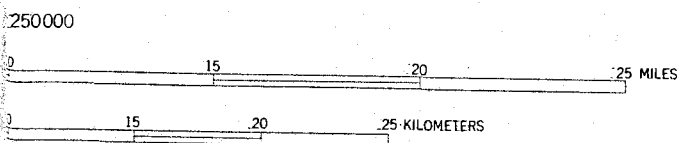
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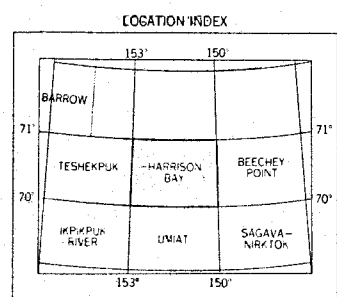




Map # 04



SCALE 100 FEET
 50 FOOT CONTOURS
 SEA LEVEL
 DATUM IS MEAN LOWER LOW WATER
 APPROXIMATE LINE OF MEAN HIGH WATER
 OF SHEET VARIES FROM 29°00 TO 31°30 EAST
 SHADDED RELIEF AND CONTOUR EDITIONS
 GEOLOGICAL SURVEY
 WASHINGTON, D.C. 20242
 SYMBOLS IS AVAILABLE ON REQUEST



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