AERIAL SURVEY OF POTENTIAL SITES FOR RAPTOR MIGRATION STUDIES ALONG THE GULF OF ALASKA

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An investigation into raptor migration along the southern coast of Alaska was initiated in 1982. Spring and fall counts of migrant raptors were recorded in the Malaspina Glacier area west of Yakutat Bay. Biologists determined that there was a sizable flight of raptors following the coast of Alaska in both the spring and fall. However, the land forms at Malaspina Glacier did not concentrate the flight sufficiently for the biologists to accurately assess the magnitude of the flight.

It was felt that an examination of the Gulf Coast from the air would aid biologists in choosing the best site for future counts. Site selection requires consideration of several factors, and all could be evaluated at once from the air. The most important characteristics at a count site are geographic features which concentrate the birds. Glaciers, mountains, bays, and the Gulf of Alaska combine in various shapes to form funnels for migrating birds. The best count site is one where the land forms shape the narrowest funnel. However, two other important factors enter into site selection. Access to the area is limited to the air, so the site must allow for aircraft landing and takeoff. The site must also accommodate the investigators' needs for fresh water and cover for a camping site.

On 4 November 1983 two biologists examined the coast of Alaska from the Copper River Delta south to Cape Spencer from a U.S. Fish and Wildlife Service aircraft. The aircraft was flown by pilot-biologist Bruce Conant

and Ted Swem served as observer. Two locations stood out as potential sites for future migration counts and banding operations.

Cape Yakataga (Figure 1)

Steep mountains parallel the coast from Cape Yakataga east to Icy Bay. The mountains approach the coast close enough to potentially pinch any raptor migration into a narrow band at two locations. The best portions of beach are within 4 miles of Cape Yakataga. The mountains gradually fade away from the coast as one goes east, so the funnel for birds is not as effective. The exception would be a 2 or 3 mile stretch of coast running between the mouths of Lawrence and Poul Creeks. This is approximately 14 miles east of Cape Yakataga.

There are both limitations and assets offered by the sites in this area. The accessability and potential accommodations in the Cape Yakataga area are the best of any potential study area on the coast. A Federal Aviation Administration station with a maintained runway would allow for access to the area and assistance in emergencies. There may even be access to beach transportation.

However, it is not known if birds may fly along Brower Ridge to the north of the beach. This ridge is quite steep and up to 2300 feet high in places. If raptors fly along the ridge top or even high up on the hill side in certain weather conditions the observers along the beach would not be able to see them. The only way to know if raptors migrate on this ridge would be to observe there.

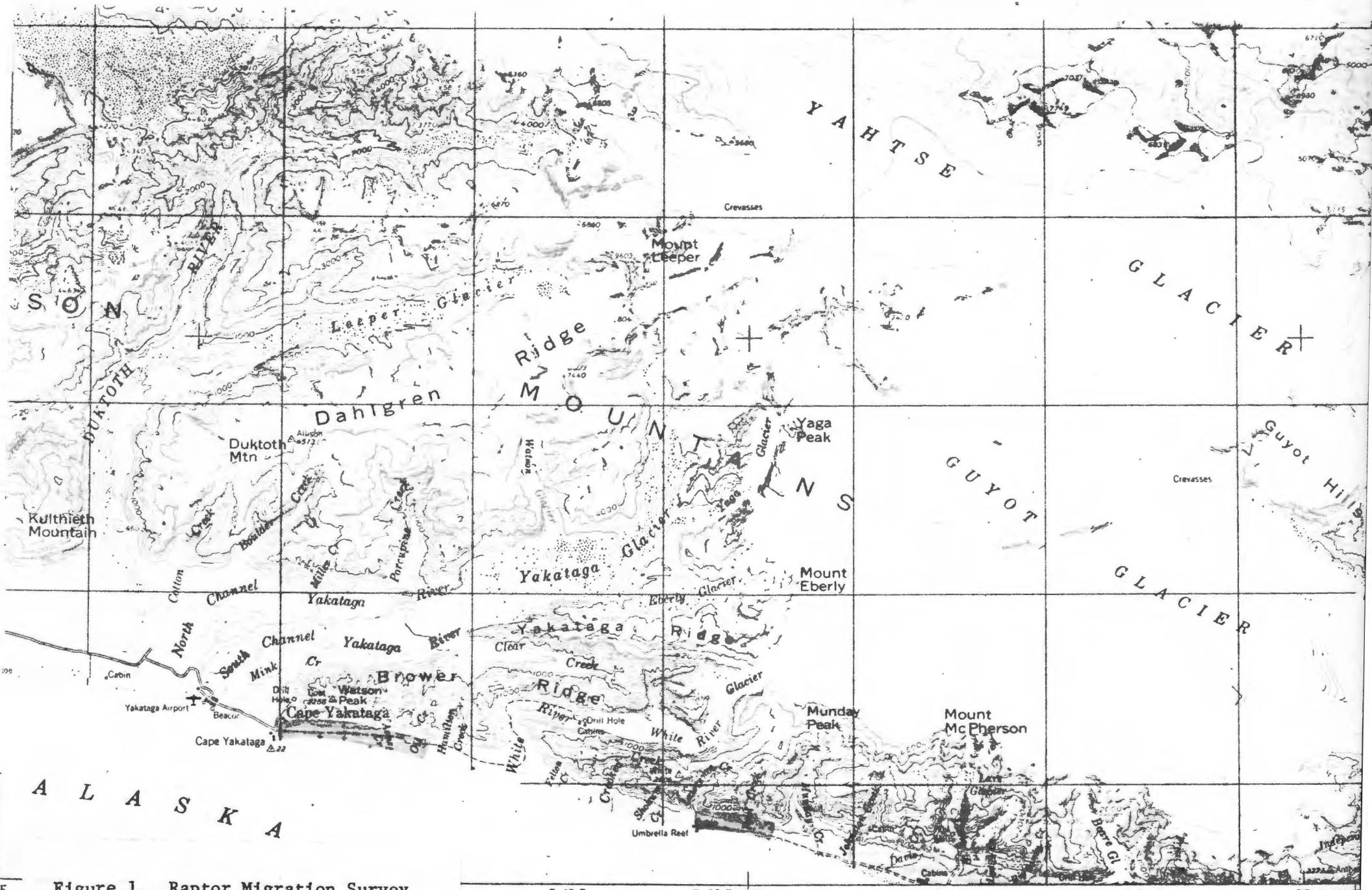

Figure 1. Raptor Migration Survey Sites at Cape Yakataga, Alaska.

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LOCATION INDEX

Grand Plateau Glacier (Figure 2)

The base of the Grand Plateau Glacier offers the most ideal site for observing raptor migration. The glacier and a terminal lake lie to the north of the beach. Rugged terrain, open water, and the ice would probably force the birds down to the beach area. A narrow ridge roughly 200 feet high and 300 feet wide runs parallel to the beach. Some ridges are attractive to migrating raptors. This ridge probably concentrates the passing birds as it surely offers wind lift.

The availability of water and cover are suitable. It appears that one could land an appropriate aircraft on the beach. The major drawback of the area is its remoteness, which adds to the cost of operating there.

In conclusion, two areas have been located which hold promise for us. The geographic structures at both locations would concentrate birds both in the spring and fall. This is obviously a bonus, as any equipment that was flown in at considerable expense could possibly be left at the same location and used twice yearly. The Yakataga area is more accessable and would provide the potential for better accommodations. The Grand Plateau Glacier area holds what I would consider to be the best hope for great concentration.

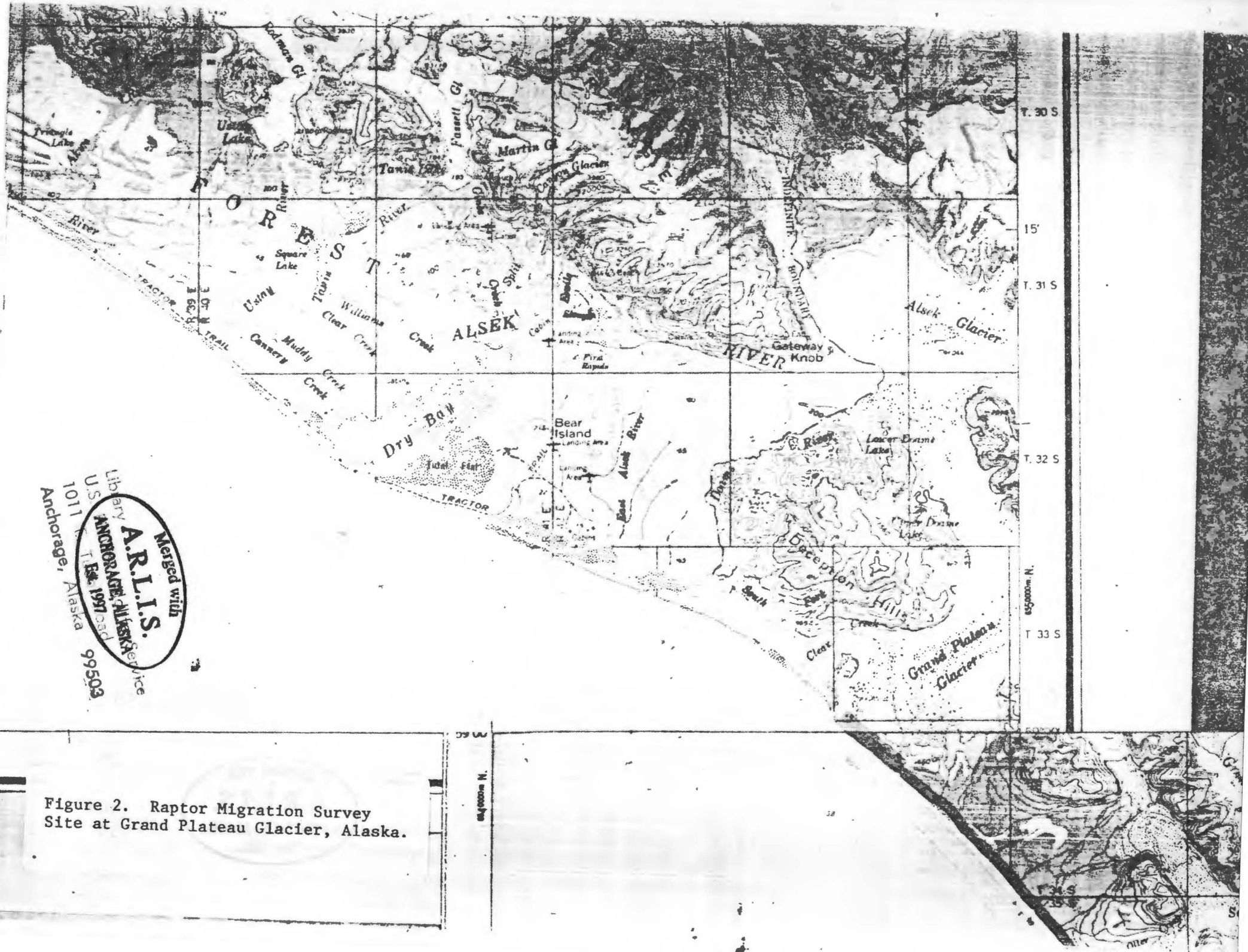

Figure 2. Raptor Migration Survey Site at Grand Plateau Glacier, Alaska.