# State of Alaska
# Department of Environmental Conservation
# Division of Spill Prevention and Response

## Trip Summary of 6 April 2017 Aerial Overflight of Hilcorp Natural Gas Leak, Cook Inlet

**In Attendance:**

Jessica Fisher (Environmental, Hilcorp Alaska, LLC)
Sue Saupe (Cook Inlet Regional Citizens Advisory Council)
Jeanette Alas (Habitat Biologist, ADF&G)
Josh Brekken (Habitat Biologist, ADF&G)
Erin Laughlin (Spill Prevention and Response, ADEC)
Craig Ziolkowski (Spill Prevention and Response, ADEC)
Carl (Pilot, Ross Aviation)
Adam (Pilot, Ross Aviation)

**Weather Conditions:** During the survey period, surface air temperature at the Ted Stevens International Airport ranged from 37 and 44 F. Visibility was 10 miles and winds were variable and ranged between 7 and 9 miles per hour throughout the survey period.

**Tide:** The tide was incoming, with high tide occurring at 2:17 pm with a height of 18.26 feet for Nikiski, Alaska. Similarly, the high tide for East Foreland was predicted to occur at 2:36 pm at a height of 18.56 feet. Observations of the tide at Chickaloon Bay included strong currents, some white caps, and rollers.

**Ice Concentrations:** Overall ice concentrations have reduced in Upper Cook Inlet and most ice was observed to be primarily confined to strips and belts within the convergent zones south of the Forelands. The concentration of the ice in the strips and belts was concentrated to 5-6 tenths or open drift and consisted largely of brash to pancake size. Beach ice was common in the Chickaloon Bay mudflats with minimal shorefast ice remaining. Ice coverage at the release location has also reduced and was patchy and occurred in a single strip. In areas where ice was present it ranged from 1-5 tenths or open to very open drift and consisted of brash to pancake size pieces.

**Trip Summary:** Prior to the flight, in discussion with Ross Aviation pilots, Carl and Adam, it was determined this survey would be conducted at an altitude of 1000 feet and airspeed of 130 knots. If objects of interest or aggregations of birds were observed: circling, reduction in speed, or decrease in altitude could be requested and implemented based on concurrence with pilots. Marine mammal sightings would require an altitude increase to 1500 feet prior to circling to avoid disturbance. Overall reduction in ice concentration was widespread. Several bird sightings occurred on the east side of

Cook Inlet however none were located near the gas release area. Additional wildlife sightings occurred on the west side of the inlet and included: Beluga whales, bald eagles, gulls, ducks, and unidentified birds. Overall, bird abundance and distribution in Cook Inlet has begun to increase. Figure 1 is a graphical depiction of the survey trackline and Figure 2 contains select photos.

**12:13 pm:** Departed Ross Aviation and transited toward Chickaloon Bay. From Chickaloon Bay the survey continued south following the eastern shoreline of Cook Inlet to the release area. Shoreline survey was undertaken at a distance of approximately ½ mile from shore.

**12:19 to 12:27 pm**: Surveyed the Chickaloon Bay area at 1000 feet altitude and airspeed of 130 knots. Beach ice was heavily concentrated throughout the mudflats with numerous open leads occurring in the channelized areas. A small aggregation of gulls was observed by one of the pilots while in this area.

**12:39 pm**: Transited past Boulder Point area and headed toward the release site.

**12:43 pm:** Upon arrival at the release area, the aircraft circled twice at an airspeed of 90 knots and altitudes ranging between 500 and 1000 feet. The circling pattern was modified from previous surveys to a more ellipsoidal shape occurring parallel to shore. The bubble field was not observed. After surveying the release area, the survey continued along the eastern shoreline.

**12:59 pm**: Two bald eagles, several gulls, and one unidentified bird were observed near Nikiski. The survey continued along the eastern shoreline to the mouth of the Kenai River where the aircraft turned to transit toward Kalgin Island.

**1:06 pm:** Arrived at Kalgin Island (north side) for shoreline survey, which was conducted counter-clockwise around the island's circumference at a distance of approximately ½ mile offshore. The shoreline was mostly ice free with beach ice occurring most frequently.

**1:21 pm:** Completed Kalgin Island shoreline survey and transited southwest to Redoubt Bay.

**1:24 pm**: Observed one beluga whale prior to diving. Upon report of the sighting, the aircraft increased altitude to 1500 feet, slowed to 90 knots, and circled back to re-sight. One beluga whale was re-sighted by two personnel prior to diving.

**1:29 pm**: Returned to survey, attained altitude of 1000 feet and airspeed of 130 knots.

**1:32 pm**: Arrived at south end of Redoubt Bay. While surveying the Redoubt Bay area approximately 10 gulls were observed; some flying and some resting on ice. In addition, eight unidentified, drab colored birds were observed flying south, in formation, near Big River.

**1:46 pm**: Arrived at the north side of West Foreland.

**1:48 pm:** Observed two adult bald eagles, one immature bald eagle, several gulls, and another flock of between 15 and 20 unidentified birds in the greater Trading Bay area.

**2:01 to 2:07pm:** Surveyed between Tyonek and Beluga, observed two unidentified ducks and 35 to 40 gulls.

**2:11 pm:** Arrived at the Susitna River.

**2: 18 pm:** Arrive at the Little Susitna River where one gull was observed.

**2:20 pm:** Concluded survey.

**2:23 pm:** Arrived at Ted Stevens International Airport, taxi to terminal.

# Figure 1. 6 April 2017 Overflight Trackline

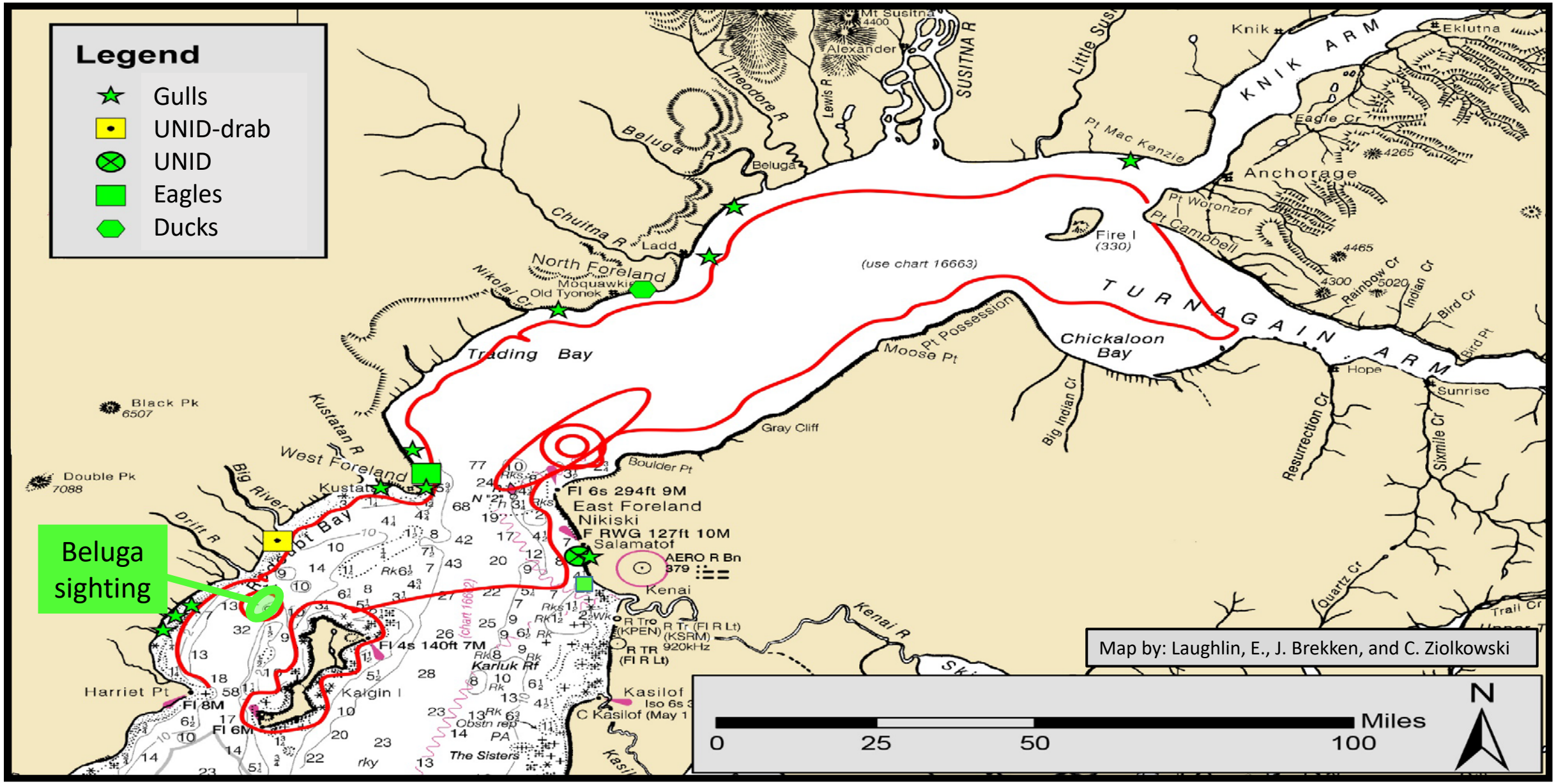

**Figure 2, select photos from aerial overflight**

Location: Upper Cook Inlet
Date Photos Taken: 6 April 2017

Photographers: Ziolkowski, C and J. Alas

Platform A and mid-channel ice belt, facing west.

Ice coverage at area of release.

Ice belt in mid-channel convergence zone, facing south.

One of several aggregations of gulls observed on water.