

The 1964 Great Alaska Earthquake and Tsunami and the Geologic Consequences of Subduction: Anchorage to Whittier

29 April 2014, Tuesday

Field trip leaders: Emily Roland and Rob Witter

Field Trip Schedule:

7:15 AM – Meet in front of University Lake Spring Hill Suites to board bus and prepare for field trip.

7:30 AM – Depart Spring Hill Suites hotel, drive 7.7 mi (23 min) to Sunset Park on Government Hill (map: <https://goo.gl/maps/8A0wM>).

7:30-8:00 AM – Enroute to first stop summarize 1964 great Alaska earthquake, discuss translational landslides and impacts in Anchorage. Handout USGS Factsheet.

8:00 AM – **Stop 1.** Sunset Park, site of the Government Hill landslide (45-minute discussion of landslides triggered by the 1964 earthquake). Board bus by 8:45 am. Enroute to Turnagain Heights drive by Native Hospital and 4th Street landslides, if time permits.

8:45 AM – Leave Sunset Park, drive 7.2 mi (20 min) to Earthquake Park via East Ship Creek Avenue (map: <https://goo.gl/maps/6Ag4Q>).

9:15 AM – **Stop 2.** Turnagain Heights landslide at Earthquake Park (~45-min, walk down the landslide, discuss culprit clay). Leave no later than 10 am.

10:00 AM – Leave Earthquake Park, drive 1.8 mi (5 min) to Point Woronzof overlook. (map: <https://goo.gl/maps/fhDSL>).

10:10 AM – **Stop 3.** Point Woronzof overlooking Cook Inlet and the Alaska Range (~45-min, overview discussion of plate tectonic setting of southern Alaska). Leave no later than 11:15 am.

10:30 AM – Leave Point Woronzof, drive 20.2 mi (31 min) to Beluga Point (map: <https://goo.gl/maps/I7eH3>).

11:00 AM – **Stop 4.** Beluga Point, McHugh accretionary complex (30-min examination and discussion of rock outcrops) Leave no later than 12:10 pm.

11:45 PM – Leave Beluga Point, drive 13.5 mi (17 min) to Bird Point (map: <https://goo.gl/maps/tSAEg>)

12: 05 PM – **Stop 5.** Bird Point [LUNCH BREAK], Valdez Group sediment (1 hour, examine turbidites once deposited horizontally in offshore trench, now vertically deformed). Leave by 1:15 pm, allows us to get to Girdwood by 1:30 pm or earlier plus builds in some extra time if we get off schedule.

1:15 PM — Leave Bird Point, drive 6 mi (6 min) to Girdwood Marsh (map: <https://goo.gl/maps/dA8ug>)

1:30 PM – **Stop 6.** Girdwood Marsh, 1964 ghost forest and evidence for ancient earthquakes. Low tide in Anchorage is about 3 PM, so tide will be falling at Girdwood Flats and we should have good outcrop exposure; there is roughly a 25-min lag in low tide at Girdwood. (1 hour, get dirty inspecting muddy outcrops along Turnagain Arm). Leave promptly at 2:45 pm.

2:45 PM SHARP — LEAVE GIRDWOOD PROMPTLY, drive 18 mi (23 min) to west entrance to Whittier Tunnel (map: <https://goo.gl/maps/snkjt>).

3:00 PM Enroute — **Stop 7.** Portage townsite [Driveby enroute to Whittier tunnel] Discuss subsidence, liquefaction and post-seismic rebound at Portage townsite.

3:30 PM — Drive through Whittier Tunnel, 4.6 mi (12 min) to Whittier (map: <https://goo.gl/maps/sLvw5>).

3:45 PM – **Stop 8.** Whittier, 1964 tsunami. (50 min, discuss earthquake and tsunami impacts in Whittier).

4:45 PM SHARP – LEAVE PROMPTLY West bound lane in Whittier Tunnel opens at 5 pm. Drive 6.2 mi (16 min) to Begich-Boggs Visitor Center on Portage Lake (map: <https://goo.gl/maps/uCMx0>).

5:15 PM – **Stop 9.** Portage Lake, Portage Glacier retreat (45 min, short discussion on Portage glacier, time to visit Begich-Boggs Visitor Center)

6:00 PM — Leave Portage Lake promptly and drive 19.7 mi (28 min) to Girdwood for dinner (map: <https://goo.gl/maps/ky0gL>).

6:30 PM – **Dinner** reservations in Girdwood.

TIME TBA — Return to Anchorage. Drive 39.7 mi (52 min) to Springhill Suites hotel (map: <https://goo.gl/maps/pPGzy>).