Near-field tsunami hazard

Seismically active plate boundary

Glacial fjords

1964 Great Alaska Earthquake
92% of fatalities were due to tsunamis
76% of them were due to local landslides

1946 Earthquake
Tsunami killed 159 in Hilo, HI and 5 in Unimak Island, AK

2015, Taan Fjord
193 m runup
4th largest

1958, Lituya Bay
524 m runup
WORLD RECORD

1936, Lituya Bay
149 m runup
5th largest

Barry Arm slide when???
History of the product line: 1998 - 2021

1998
High-resolution maps and reports

2014
Regional maps
Maritime
Pedestrian
Subsidence

2016

2018 Update

2020
Brochures

Know Your Tsunami Hazard in Valdez

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FY 2019-2020 project areas

- Bristol Bay
- Kodiak Is.
- Bering Sea
- Gulf of Alaska
- Seward
Regional tsunami hazard assessment: Bristol Bay
Tectonic and landslide tsunami sources
Maximum tsunami energy

Tectonic tsunamis

Landslide tsunamis

Scenario 3: Bering Canyon Slide, 16 km³
Tsunami hazard is higher than expected
High-resolution modeling: Kodiak villages

- Regional tsunami hazard assessment was completed in 2018
- In FY2019-2020 project period, we performed high-resolution modeling and mapping for 7 Kodiak communities.
From regional assessment to high-resolution maps

Regional tsunami hazard assessment

High-resolution tsunami inundation map
Visiting Kodiak communities

New tsunami shelter in Chiniak

New tsunami shelter in Ouzinkie
The previous report was published before the 2011 Tohoku tsunami. We made a new set of potential tsunami sources that include large amount of slip in the shallow part of the megathrust, similar to that in the Tohoku earthquake. We also consider splay faults that have been mapped offshore Kenai Peninsula. The new inundation zone is more consistent with the Seward map in the ASCE Tsunami Hazard Tool.
Publication of reports

Publications Search Results

Bookmark your results! Found 12 publications that matched ALL of the following criteria:

Author: Suleimani, Year Range: 2019-2021, Quadrangle(s): , Publishing Agency: All.

IC 91

RI 2020-2A

RI 2020-1

RI 2020-2
Tsunami hazard maps in your phone

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