“Alaska’s Mapping Leadership: Fugro’s Collaborative Impact”

Alaska GeoSummit 2023

Joseph Jones

October 27, 2023

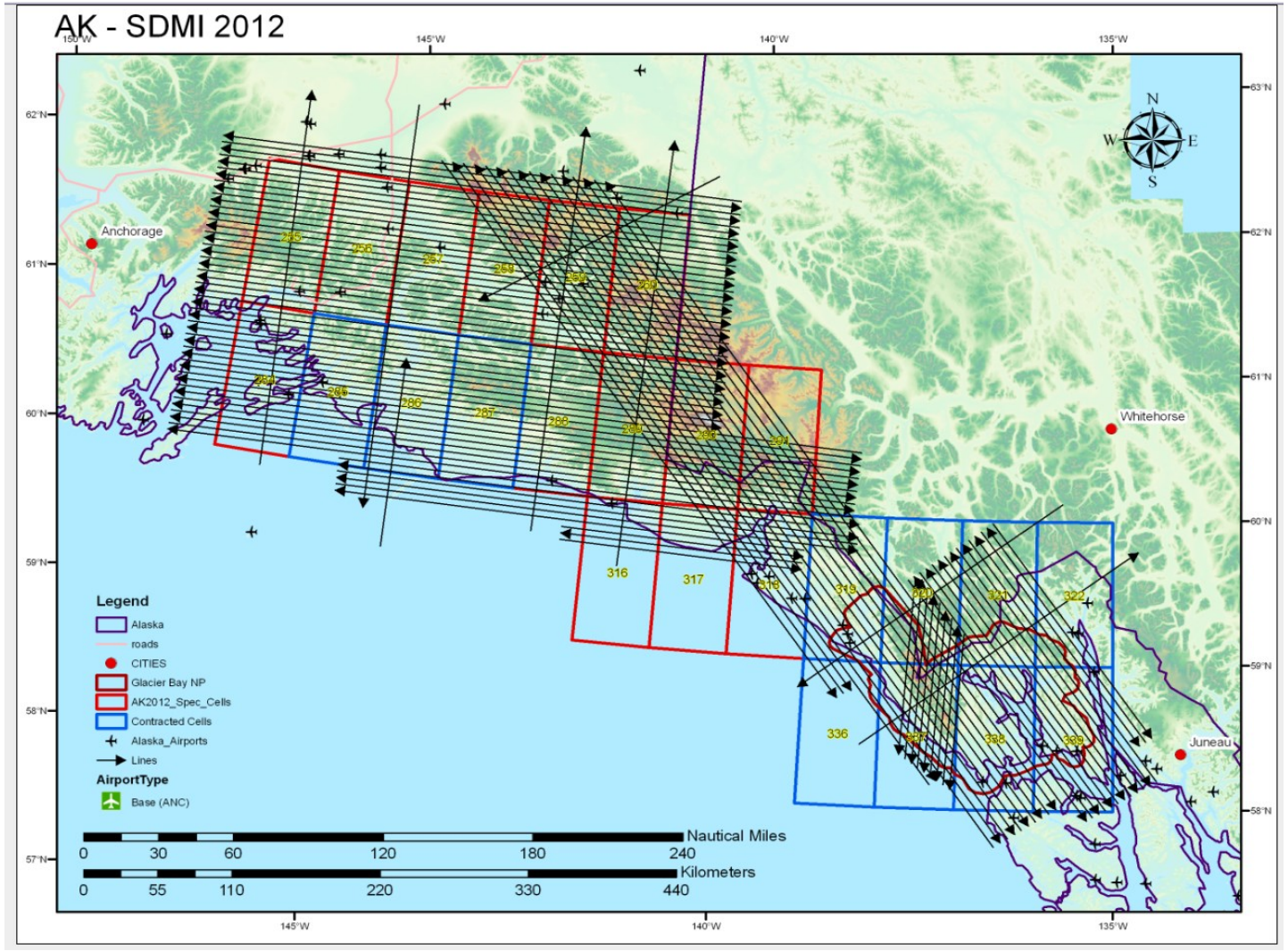
Leveraging Public-Private Partnerships for Geospatial Advancements in Alaska

Why Collaboration Matters?

- Collaboration between public and private sectors
- Aligning technology with public sector needs
- Forward-thinking budgeting for geospatial advancements
- Advancing geospatial technology for public benefit
- Building on success to create a safe and livable world

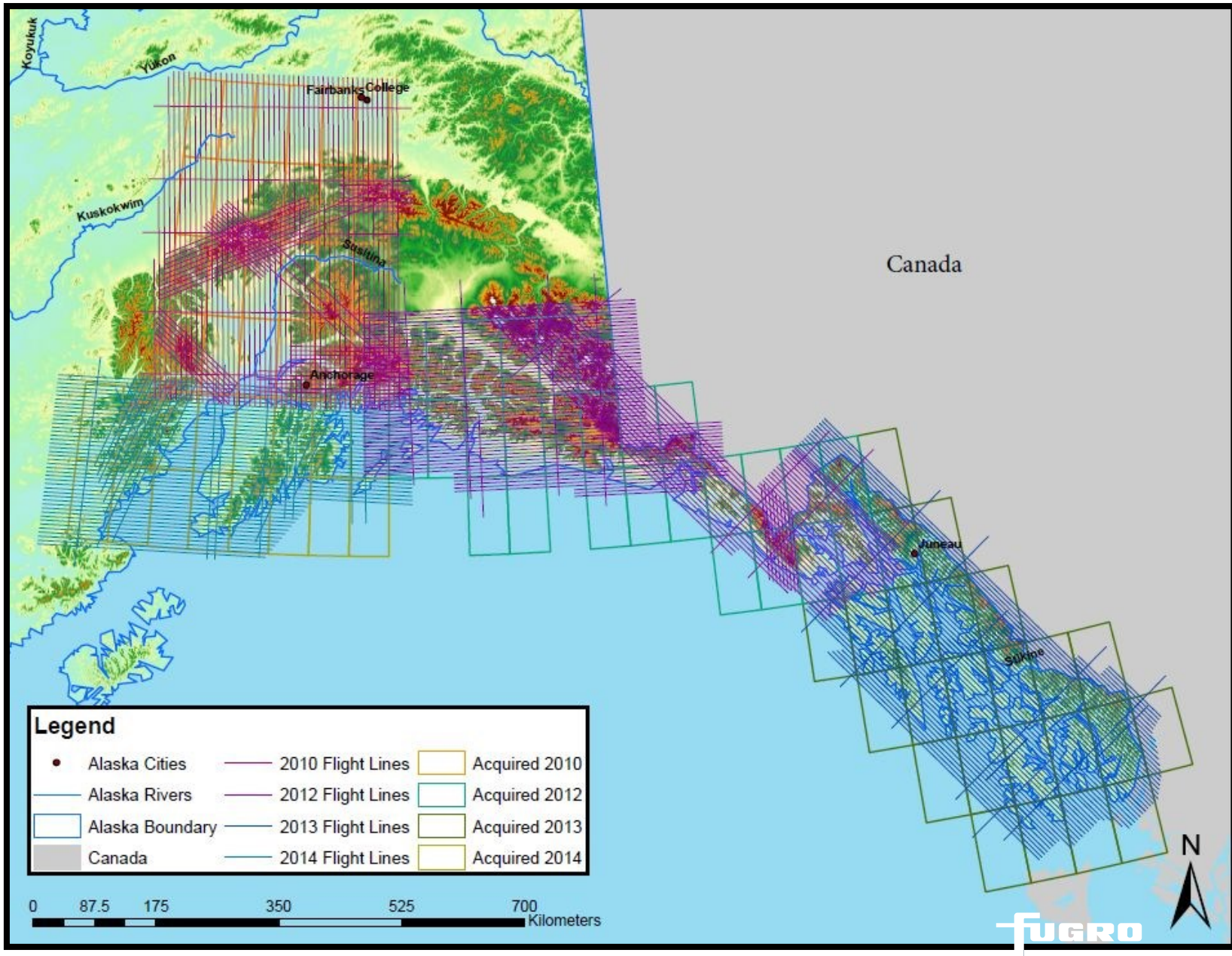
The Start of Speculative Collections in Alaska

- Blue Cells – Original Tasking
- Red Cells – Over-Collect
- Benefits:
  - Efficient Flight Plan
  - Temporal Continuity
  - Cell Price List
  - Partner Collaboration
  - Partner Budget Planning



Data Library

- Fugro acquired landmass 338,862 km², of this amount, 68% flown on speculation totaling 229,512 km².
- Strict guidelines were required by Fugro to monitor and drive success.
- Data library amortized over (5) years requiring focused coordination with State, Federal, and Tribal stakeholders.



Alaska 3DHP Program

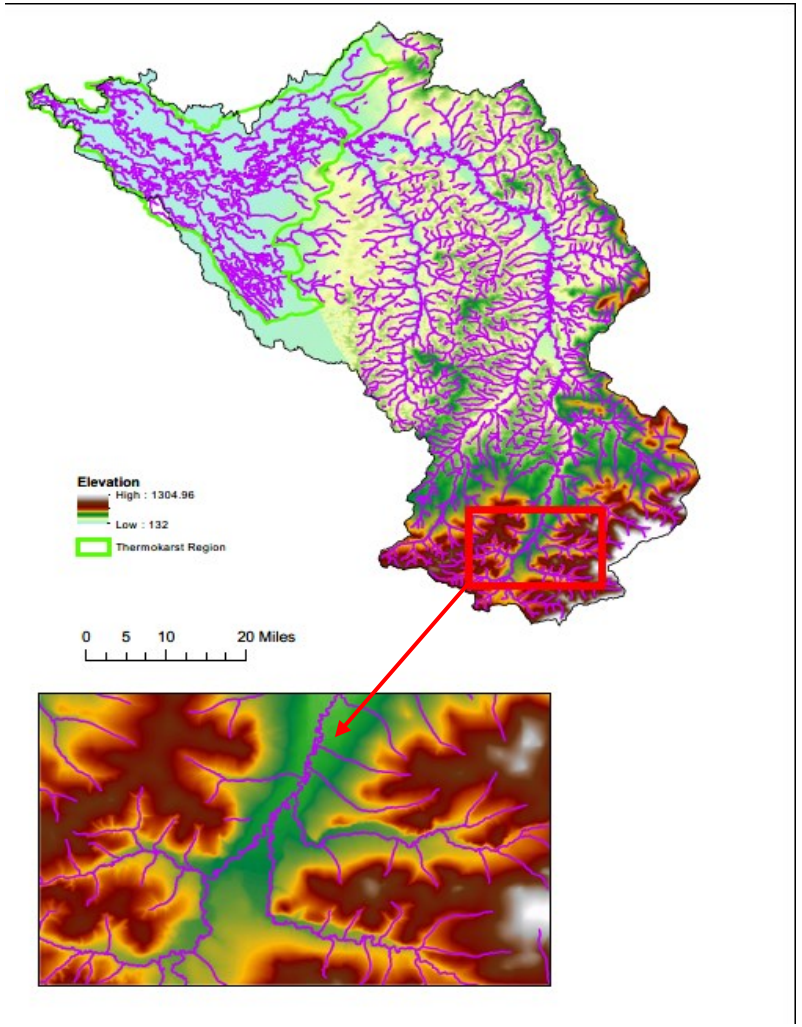
The **3DEP Hydro-flattening** process does not operate as a network; instead, approximately 99% of our hydrographic data is generated through hydrological measurements using lidar technology. We design and employ proprietary software for automated hydrographic data processing. This automated data processing yields polygonal representations of lakes and rivers, which are further refined.

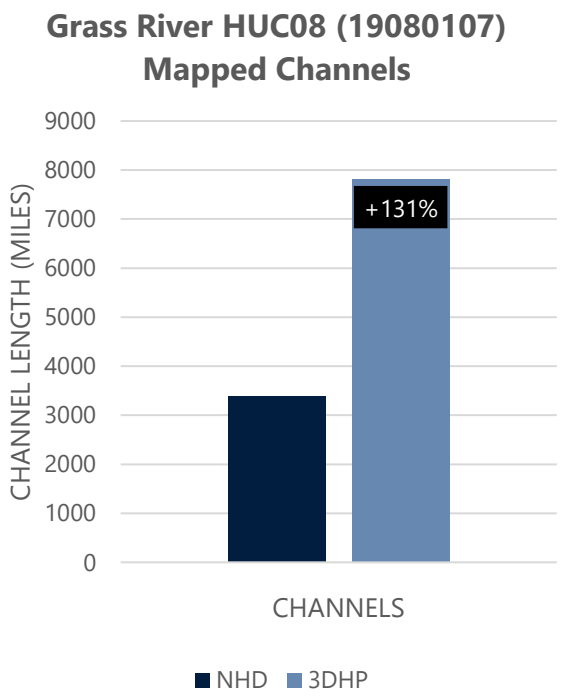
The **3DEP Hydro-enforced** approach encompasses the polygons, in addition to incorporating the primary single-stream features. This configuration closely resembles a network, distinct from artificially routed pathways traversing rivers and lakes.

The **3D Hydrography Program (3DHP)** constitutes a comprehensive hydrographic network, encompassing the hydro-enforced IfSAR as well as lidar data, augmented by the inclusion of all artificial pathways, thereby establishing a unified hydrological network interconnecting most hydrographic features.

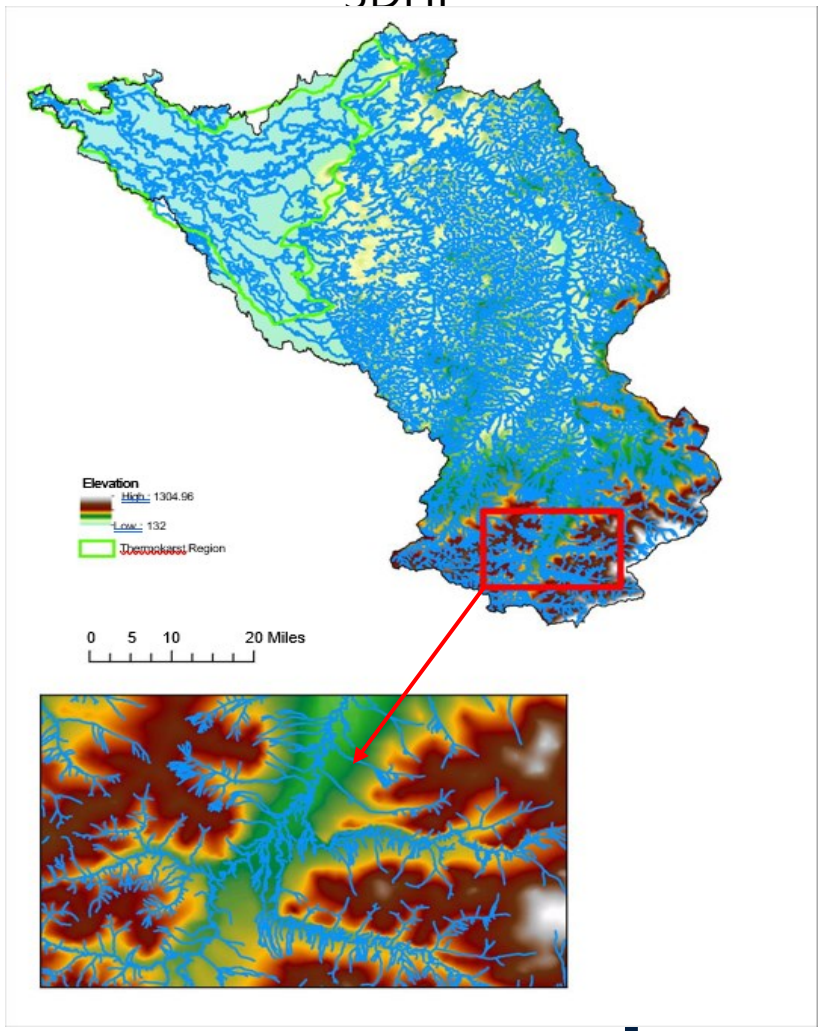
Grass River HUC08 (19080107)

NHD



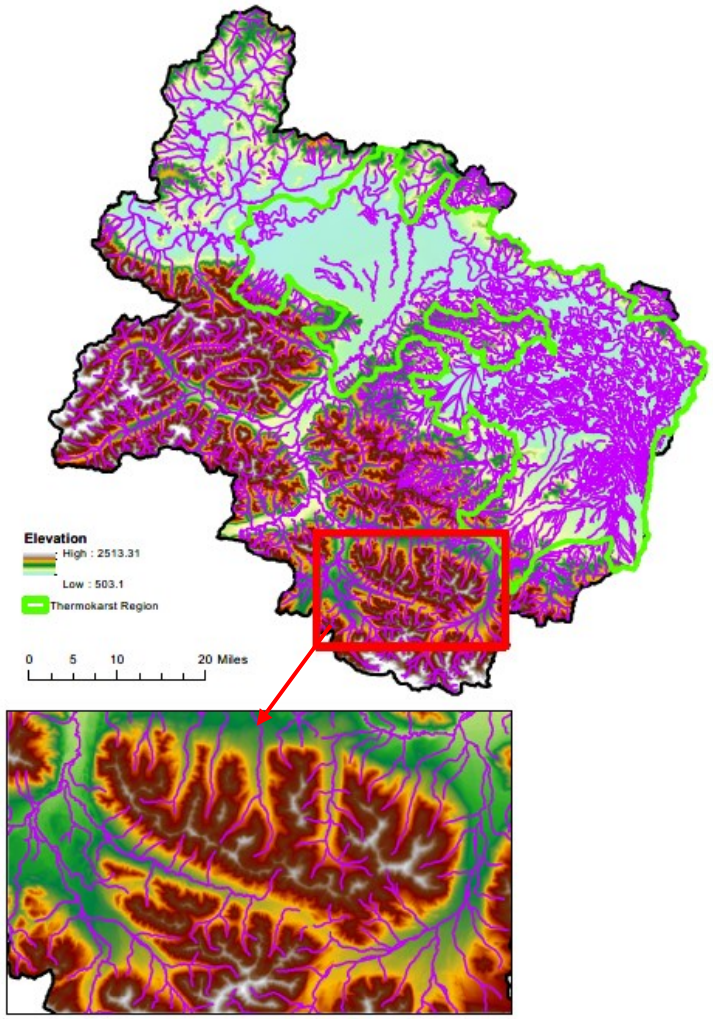


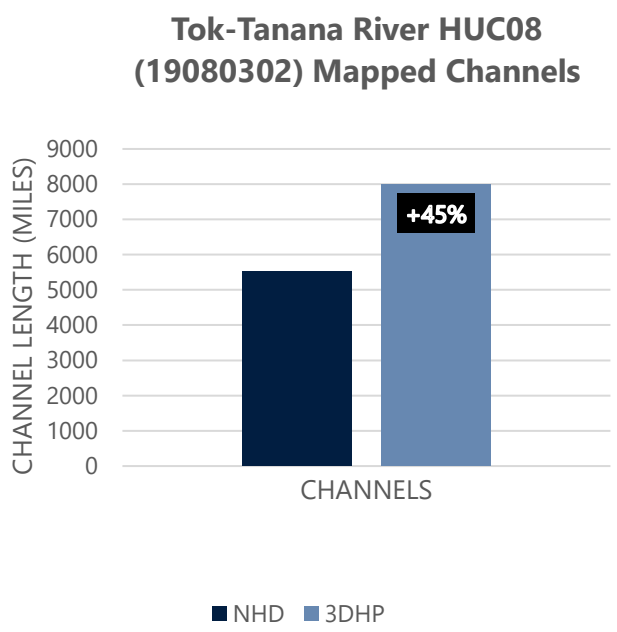
3DHP



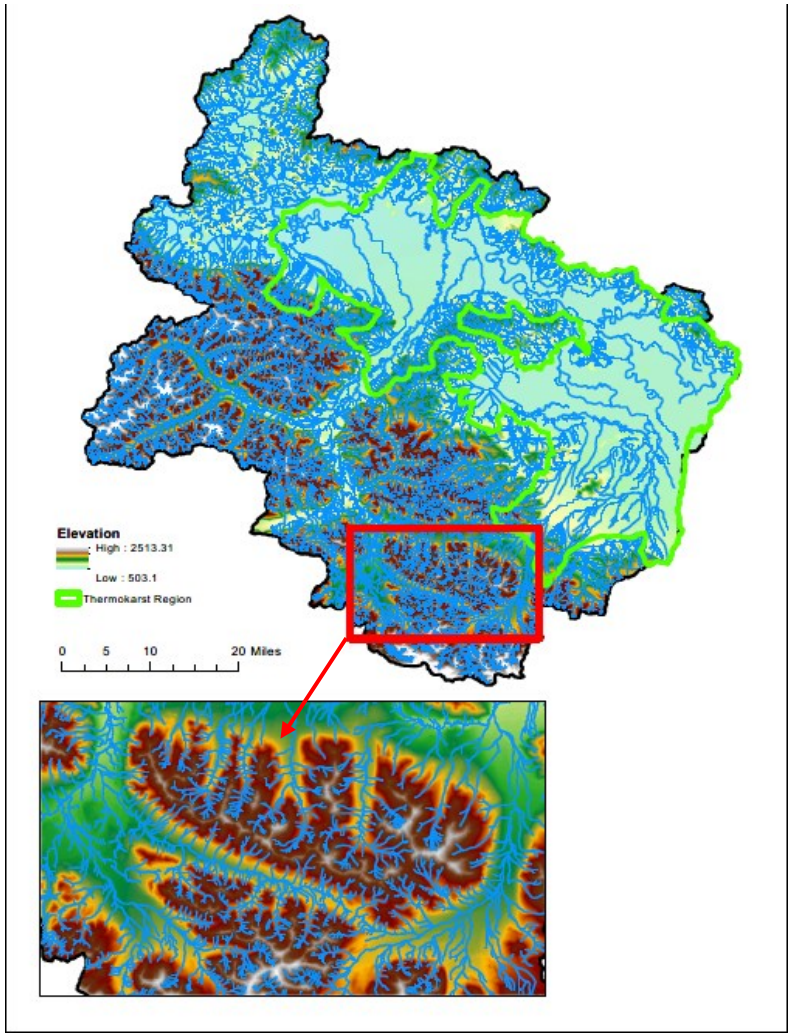
Tok-Tanana River HUC08 (19080302)

NHD

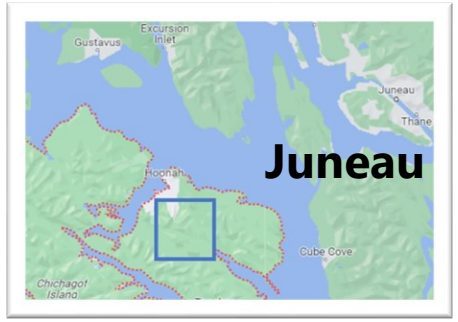


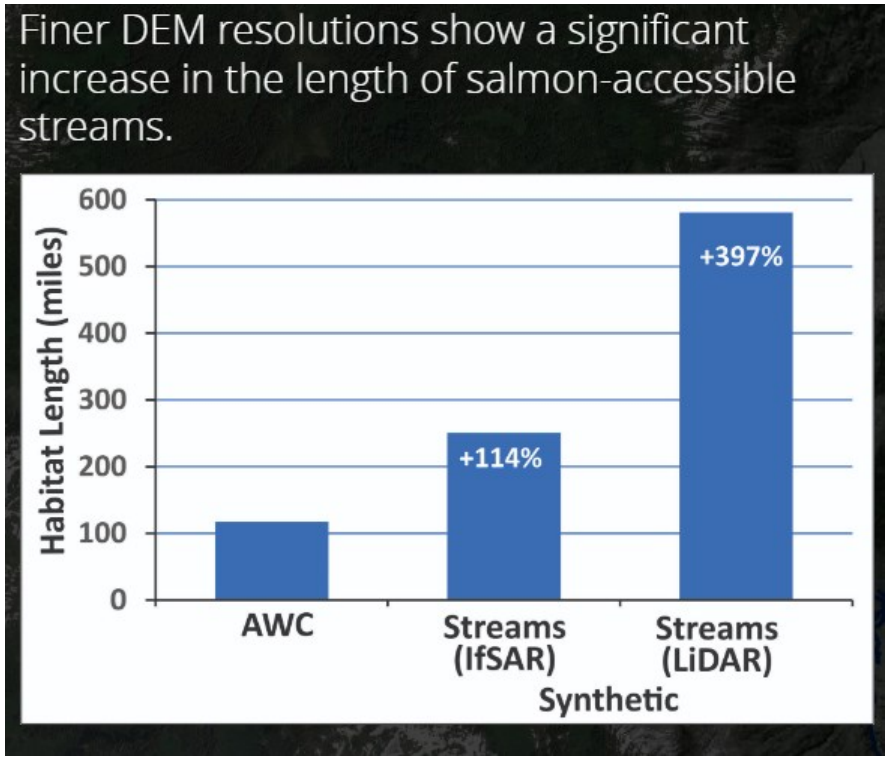


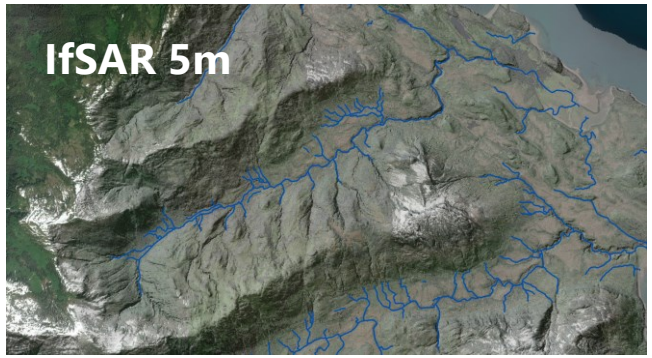
3DHP

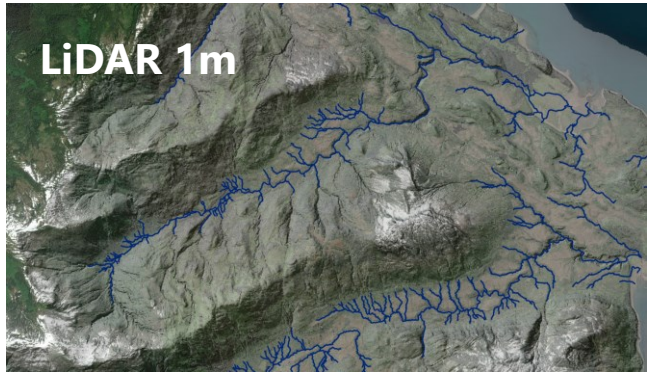


IfSAR & LiDAR Increase the Predicted Extent of Fish Habitats









FUGRO

Unlocking **Insights**
from **Geo-data**