

Glacial Research



This investment would enhance our ability to predict glacial outburst floods

Improving Hazard Prediction for Glacial Lake Outbursts

- In August of 2023, the glacial outburst flood from Suicide Basin in Juneau created the largest flood event ever measured on the Mendenhall River, resulting in extensive damage.
- At least nine structures were condemned and more than 30 structures were damaged.
- Funding in the amount of \$150,000 is requested to restore monitoring of the basin in order to collect and analyze data that would better enable flood prediction for Suicide Basin as well as for other similar glacial areas in Alaska and in the world.

- Funding would support the purchase of drone mapping accessories, computational equipment, helicopter access to field sites, faculty research time, and the training of undergraduate research assistants.
- By enhancing our ability to predict glacial outburst floods, this request will enable Juneau and communities like Juneau in other areas of Alaska and in the world to minimize the devastation and economic impact of future flooding events.
- UAS Researchers are already receiving national recognition in this field because of the past monitoring conducted by faculty on glacial flooding events.
- To increase UAS' grants-based revenue in areas where we are uniquely positioned to contribute, we need to invest in our ability to collect the data needed to apply for larger funding opportunities from federal, state, and local organizations.
- In addition, because the funding will support student researchers, it can also aid in expanding research and experiential learning opportunities for students, which leads to higher retention and completion rates.

A Legacy of Glacial Research

- In addition to the research conducted through UAS, UAF's glaciology projects extend from the Alaska Range to southeast Alaska, and beyond to Greenland and Antarctica.
- UAF glaciology research study areas include glacier speeds, glacier ice volumes, glaciated landscapes, glacier water quality, and landslide hazards.



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