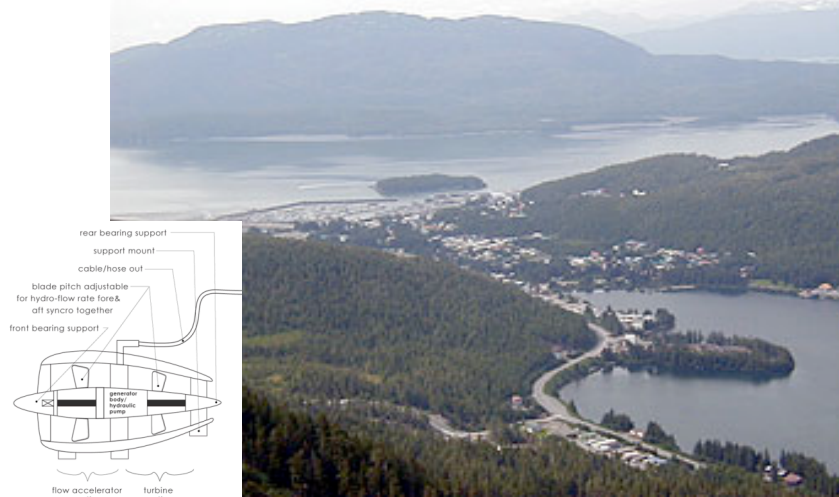


Powering remote Alaskan villages and camps

Portable hydro-generators



Portable hydro-generators on the Copper River could supply entire native villages or research camps

Objective:

Develop a robust, portable hydro-flow generator capable of safely delivering 10kW of environmentally clean power.

Approach:

- Utilize high (~4kt) velocity river flow to efficiently generate electric power.
- Incorporate light, durable components; design for reliability in harsh environment.
- Test at Marine Hydrodynamics Laboratory where Alaskan flow rate can be simulated.
- Field test at Bering Glacier in conjunction with ongoing U-M research at that site.

Impact:

Alaskan villages and scientific camps often are remote, serviced only by bush planes and powered by portable gasoline generators. Flying gasoline into remote areas is dangerous and expensive.

This technology will harness part of the billions of foot-pounds of energy flowing by every few minutes, providing clean, flexible, non-invasive energy.

Potential transfer to any environment with significant geographic relief and the need for power at remote sites.

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Facilities and infrastructure:

Physical Model Basin, Circulating Water Tunnel and MHL Shop and Fabrication Facilities