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Tanan River Test Site – Investigation of Acoustic Cameras for identifying woody debris in turbid riverine environments.

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These data were collected at the Tanana River Test Site in Nenana Alaska. Two different make and model of acoustic camera were used and debris targets were introduced into the current and allowed to travel through the camera's field of view.

The two cameras and associated collection software were:

Model	**Frequencies [kHz]**	**Range [m]**	**Beam #/Angles [°]**	**Vertical Swath Angle [°]**	**Recording and Viewing Software**
M900-2250-S130/45 Mk2 Blueview	2250/900	10/100	1/20° (256 beams) 1/12° (768 beams)	12/20	Teledyne ProViewer 4
Gemini 1200ik	1200/720	50/120	1/20° (512 beams) 1/12° (1024 beams)	12/20	Tritech Genesis

Artificial targets of differing materials and dimensions were used to explore acoustic camera returns. The ABS pipe, PVC pipe, and plywood were tied to a buoy from their top end and to a lead or steel weight on their bottom end so that they would sit in the water column at a controlled depth.

Photos and descriptions of the targets are provided below:

Target Name	Material	Target Height [cm]	Target Width [cm]	Depth to top [cm]	Depth to bottom [cm]
ABS Pipe	4" SCH 40 ABS Pipe (flooded)	187	4.75	23	210
PVC Pipe	2" SCH 40 PVC Pipe (flooded)	218	2.375	117	335
Plywood	5/8" Plywood, two pieces in lap joint	84	43	36	120

Rain sticks (2)	2" SCH 40 ABS, (sealed with partial fill of sand)	61	2.375	-12	49

Figure 1. Plywood target

Figure 2. PVC Pipe (white, bottom) and ABS pipe (black, top)

Figure 3. "Rain sticks" targets

A table of notes taken on acoustic camera configuration and targets is included with the datasets.