V – converting data into SONAR data, not yet reconstructed into

A set of simulations and come up with ways they could fail – whale false flags

Data+ quick analysis

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Our job to create simulations of the environment & creating sonar data

First step:

Realistic echo – one pulse out, one pulse back in, comes from the impulse response

2 months: simulate something, V tries to reconstruct it, sees what match up

Time series signal – modulated sound wave

For now, ARR files will be good, if we can generate some kind of echo

How big does the bellhop think the receiver is? Gaussian beams vs rays

Big sphere as obstacle – more likely to produce ray – curved surface



If a ray misses when it’s reflected back, do you get a signal?



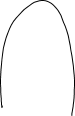
Simulating wave propagation with ray tracing and having Gaussian beams that follow it



Adding noise?



How many rays are necessary to really sense any details? - GPU



Bellhop can’t run on AWS?



How would you simulate movement?



How would you simulate the fact that your pod is moving horizontally as well as vertically?

* Require change for .env

Impulse response 2D – leads us to inverse FT find the attenuation, to tell where the stuff is

Send pulse out & get something back

Code for spotlight radar, strip map radar

Arr 3D is done by doing 2D cross sections – range in the right direction.

Team that collected data from the pond & have calibrated sensors