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An Examination of Human Underwater Sound Localization Abilities: in the Azimuth

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Sponsoring Institution: ONR



Differences in the Medium

Density of the Medium

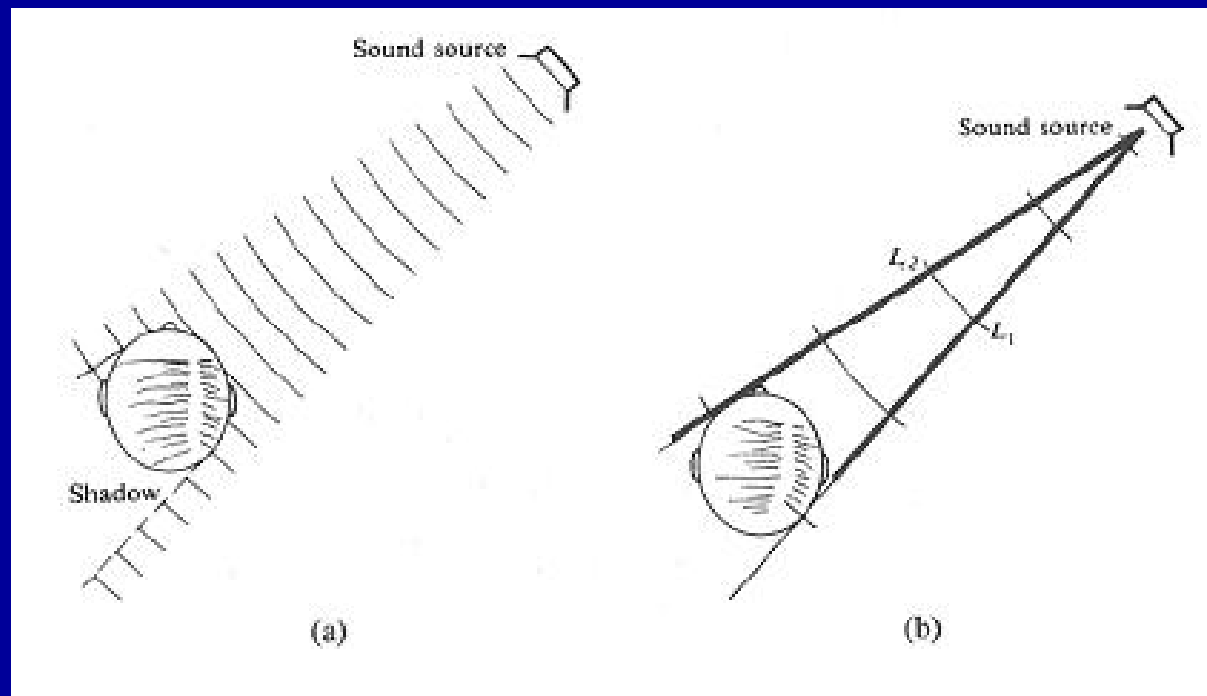
air is $\sim 1.2 \text{ kg/m}^3$

water is $\sim 1000 \text{ kg/m}^3$

Speed of Sound

in air is $\sim 340 \text{ m/s}$

in water is $\sim 1500 \text{ m/s}$

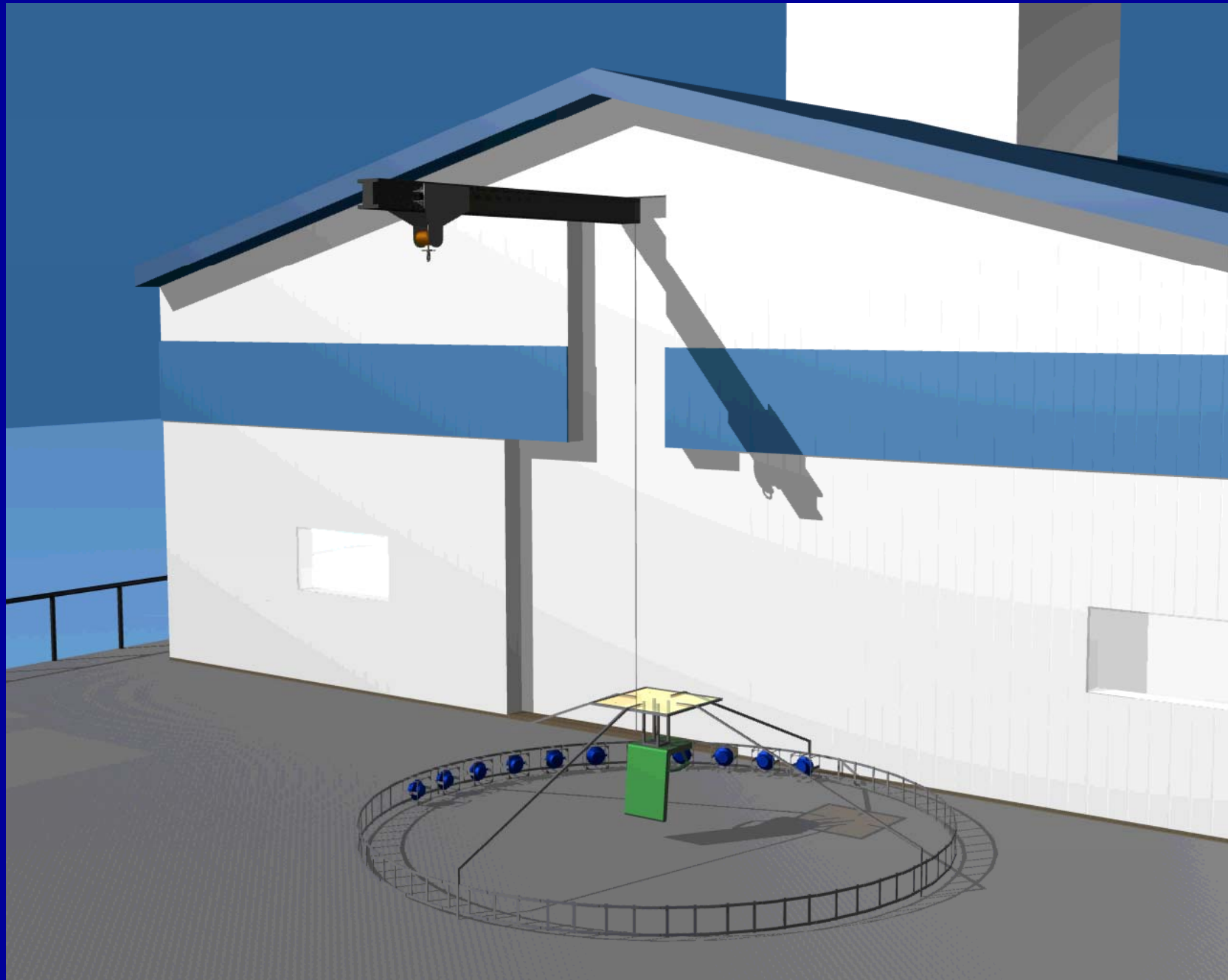




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Experimental Setup

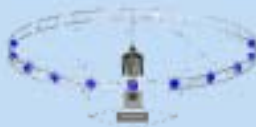




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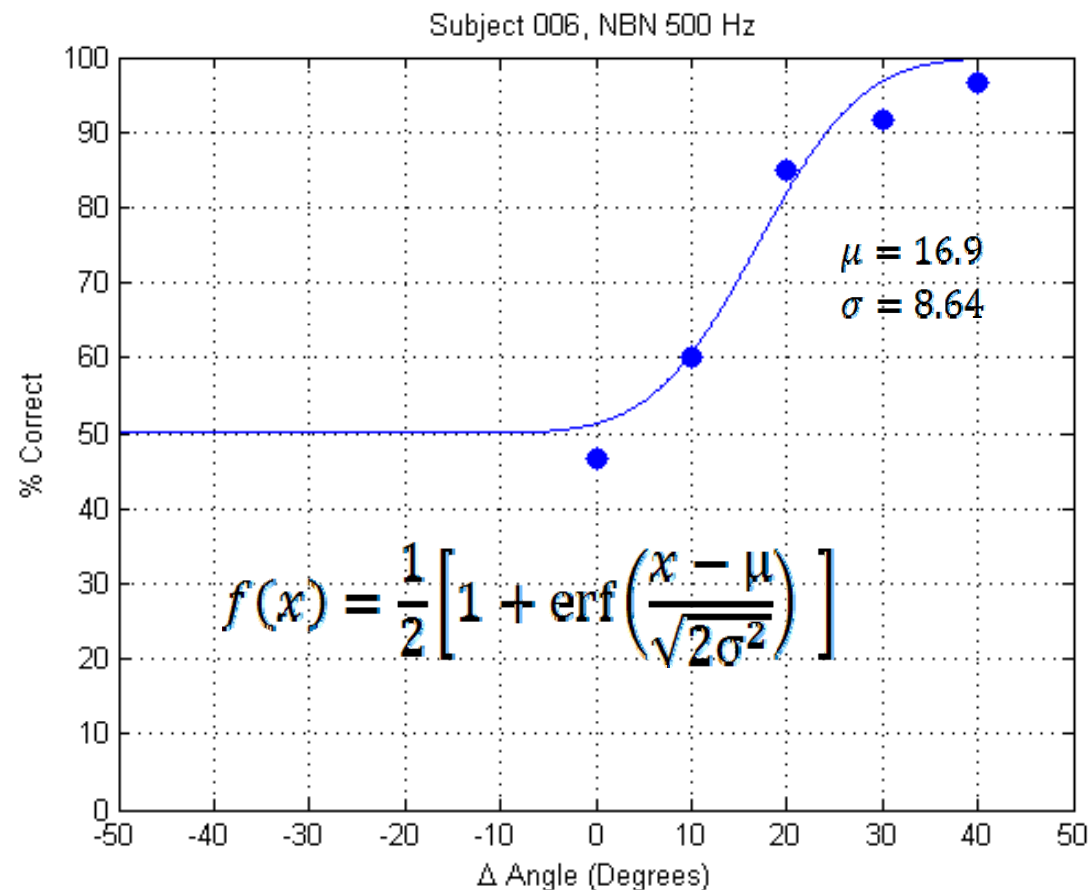
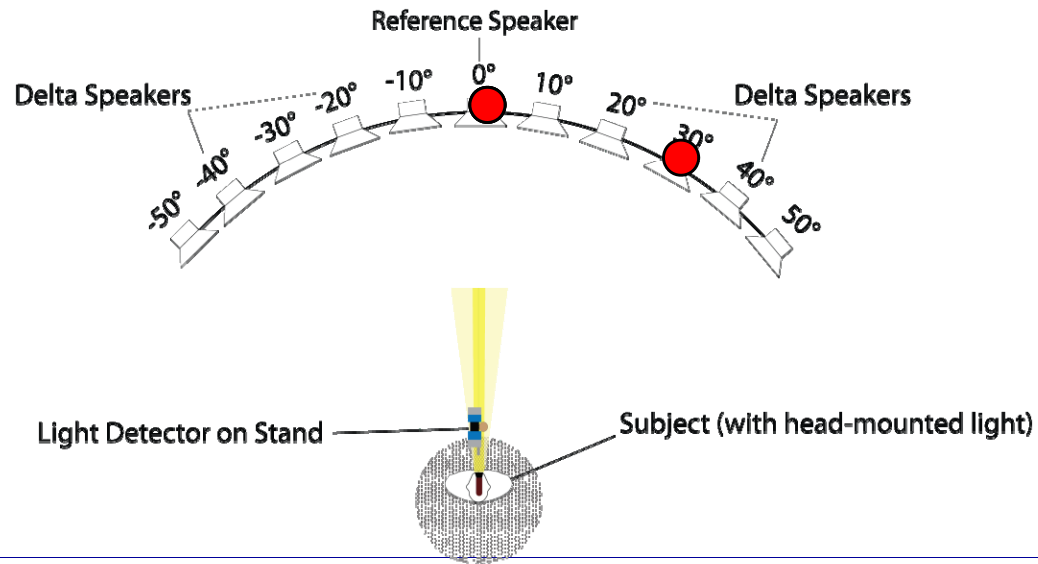


Experimental Setup Modified



2 Cue - 2AFC

- Narrowband Noise
- 400 msec Triplet
- 100 msec noise burst
- 20 msec ramp on/off
- 300 msec I.S.I.





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Results

Send data request to NSMRL.