



Increased Residency

INNOVASEA

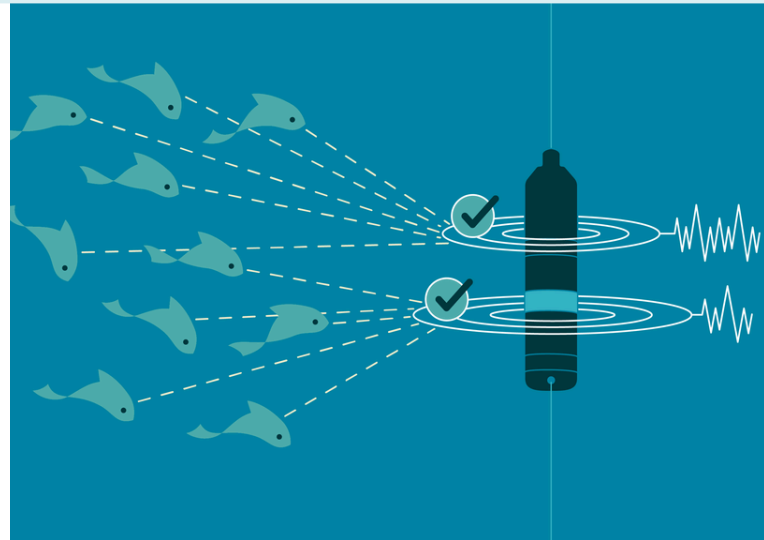
Break free of residency limits with Increased Residency (IR) programming on NexTrak

IR allows for up to 10x more detections than traditional PPM systems by addressing the issue of code collisions in high-tag volume areas and studies where fast tag transmission rates are required. By pairing IR programmed tags with NexTrak receivers, researchers now have the freedom to choose study designs based on scientific goals, not technological limitations. Increase sample sizes, speed up transmission delays, and add more tagged animals year over year without sacrificing detection performance.

Enjoy up to 10x the detections in high-residency areas.

Use cases:

- **High residency areas:** Enjoy reliable data collection in areas where large numbers of tagged animals congregate, such as spawning or feeding grounds.
- **Fine-scale positioning studies:** More and better positioning and behavioral data for study areas with sufficient equipment coverage.
- **Fast-moving species:** Track highly mobile species with confidence, using mixed arrays and timed transmission programming to maximize detection opportunities without collision risk.



Benefits

Tag more fish

Eliminate residency constraints and tag more fish in a given study area without impacting detection performance.

Capture more data per unit time

Speed up tag transmission rates for more temporal resolution in your detection data.

Fuller fish tracks

Generate more animal positions per unit time, providing more accurate spatial and temporal representations of your study animals' fine-scale behavior.

Part of the NexTrak system

Experience 40% greater detection range and improved performance in noisy environments.



Fish Tracking



Pair with:

- Innovasea 69kHz transmitters
- NexTrak R1 and NexTrak AR (FW 7.x.x or greater), VR100-300 Deckbox and Rx-LIVE 69kHz
- Fathom Connect (Version 4.7.x or greater)
- Fathom Mobile (Version 3.2.x or greater)

Example study scenarios:*

Typical study using conventional programming and a mix of VR2 and NexTrak Receivers**

Transmitters within range of a receiver	Avg Delay	VRx Receiver	NexTrak Receiver
		Detection Probability	Detection Probability
10	120 s	50%	50%

High residency NexTrak only study using IR programming

Transmitters within range of a receiver	Avg Delay	NexTrak Receiver
		Detection Probability
40	120 s	71%
80	120 s	50%

Typical study using Increased Residency (IR) programming and a mix of VR2 and NexTrak Receivers**

Transmitters within range of a receiver	Avg Delay	VRx Receiver	NexTrak Receiver
		Detection Probability	Detection Probability
10	120 s	50%	93%
25	120 s	20%	81%

Migratory (faster delay) NexTrak only study using IR programming

Transmitters within range of a receiver	Avg Delay	NexTrak Receiver
		Detection Probability
10	30 s	75%
10	15 s	59%

*Example results are not guaranteed. Actual performance will vary depending on study design and environmental conditions.

**VR2 receivers are able to detect IR tags, but will not yield the increased detection efficiency.

Who we are

Fueled by a commitment to a more sustainable future, Innovasea is at the forefront of pioneering technologies that transform our industry, protect the oceans, and feed our world. We deliver fully integrated solutions, backed by a team of experts, to ensure users get the most out of their equipment. Together, this work advances our mission of blending innovation with environmental stewardship and global advocacy.

