

# Shrimp cVMS Early Adopter Program

## *Progress to Date*

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**Shrimp AP Meeting: March 4, 2025**

## Pathway for the Early Adopter Program

- NOAA's cellular Electronic Logbook (cELB) program to collect shrimp effort data became obsolete when 3G network by Verizon was discontinued.
  - Manual retrieval of data is now necessary
- Several attempts to test replacement systems since 2019 involving LGL, NOAA, the Gulf Council, and the shrimp industry
- A path forward: cellular Vessel Monitoring Systems (cVMS)
- In September of 2023 LGL was contracted through the Gulf States to coordinate the "Early Adopter Program" to modernize shrimp effort data collection by soliciting volunteers to trial cVMS units
  - Free units, installation, 2 years of cell service, and access to online portal

# Early Adopter Program

*We expect that cVMS units installed through this program would be appropriate for use in either “Alternative 2” or “Alternative 3”*

## Primary Differences Between Alts 2 and 3



	Alternative 2	Alternative 3
<b>Allowed Data Transmission Type</b>	Both cellular and satellite	Cellular only
<b>Data Recipient</b>	NMFS (NOAA OLE) server	Non-OLE NMFS server*
<b>Initial VMS Device Reimbursement through Pacific States Marine Fisheries Commission and NOAA OLE</b>	Yes (up to \$950 if cellular and satellite are options)	No
<b>Field Tests and At-sea Trials for VMS Devices</b>	May be performed	Mandatory
<b>Additional NMFS Costs from Not Utilizing 50 C.F.R. § 600.1501</b>	No	Yes

➤ \*OLE would be able to access these data.

[https://gulfcouncil.org/wp-content/uploads/D-4c-Jan-2025-Council-Mtg\\_Shrimp-Framework-Action\\_Tab-D-No.-4c\\_final.pdf](https://gulfcouncil.org/wp-content/uploads/D-4c-Jan-2025-Council-Mtg_Shrimp-Framework-Action_Tab-D-No.-4c_final.pdf)



**NOAA  
FISHERIES**

Southeast Fisheries  
Science Center

*NOAA Fisheries and the Gulf States Marine Fisheries Commission are encouraging the early adoption of a new system to modernize shrimp effort data collection.*

*The new system will increase the quality and efficiency of data collected to describe the Gulf of Mexico shrimp fleet, and reduce burden on the shrimping industry.*

*The program is seeking volunteers to adopt these new devices at no cost through September 2024.*

## Shrimp cVMS Fact Sheet 2023

# NOAA Fisheries Seeks Help to Modernize Shrimp Data Collection

## New Shrimp Effort Monitoring Program Seeks Early Adopters

### OVERVIEW AND BENEFITS

The new system involves installation of cellular Vessel Monitoring System units on board federally-permitted shrimp vessels in the Gulf of Mexico shrimp fleet. These devices will transmit data directly to the Southeast Fisheries Science Center via cellular networks. This will allow scientists to measure shrimping effort more accurately and efficiently. The new system also provides direct benefits to the shrimping industry. Depending on the device installed, shrimp vessel owners can choose to access applications that allow them to track their boats in near real-time, if within cellular range, and save them for comparison.

### How to Sign Up

The new devices are now available at no cost for a limited number of participants. The program will cover the cost for a limited number of new units, installation and maintenance, and 2 years of cellular service for the new device. We are seeking volunteers through September 2024. Early adopters must possess a federally permitted shrimp vessel. Interested parties should contact LGL Ecological Research Associates:

**Nathan Putnam**  
Email: [nputman@lgl.com](mailto:nputman@lgl.com)  
Cell: (205) 218-5276  
Office: (979) 846-7000

### DATA COLLECTED

The new devices track time-stamped vessel position to determine how much time is spent towing nets versus steaming to fishing grounds. This is converted to an estimate of effort, in tow days. These data are used directly in stock assessments to estimate red snapper bycatch and are essential to meet sea turtle conservation requirements. Position information also helps scientists identify important shrimping grounds. This helps determine where certain activities may take place such as deploying artificial reefs, or developing aquaculture and offshore wind infrastructure.



**Gina M. Raimondo**  
U.S. Secretary of Commerce

**Richard W. Spinrad**  
Under Secretary of Commerce  
for Oceans and Atmosphere

**Janet Coit**  
Assistant Administrator for Fisheries

October 2023

[www.fisheries.noaa.gov](http://www.fisheries.noaa.gov)

OFFICIAL BUSINESS

National Marine  
Fisheries Service  
Southeast Fisheries Science Center  
75 Virginia Beach Dr.  
Miami, FL 33149

## Frequently Asked Questions

### WHY IS THIS CHANGE OCCURRING?

Shrimp effort data was historically logged through a cellular electronic logbook system. These devices transmitted time-stamped vessel position data through a 3G cellular network to our scientists. Since 3G cellular technology was shut down in December 2020, shrimpers have been physically sending in memory cards for data retrieval.

### HOW DID THIS COME ABOUT?

With funding from Congress, NOAA Fisheries worked with the Gulf States Marine Fisheries Commission and LGL Ecological Research Associates to test the new system. They outfitted commercial shrimp vessels with new devices alongside the existing ones and found their effectiveness comparable.

### WHAT ARE THE DIFFERENCES BETWEEN THE NEW AND EXISTING SYSTEMS?

The new and existing devices collect the same data. The new system will automatically transmit the data to NOAA Fisheries through current cellular networks. This is an improvement upon the current process, which requires vessel owners to manually remove memory cards from their device and mail them to NOAA Fisheries for data retrieval. Volunteers for the early adopter program will have a choice among multiple devices, some of which allow vessel owners to see and save vessel positions using vendor applications.



### DO SHRIMPING VESSELS NEED TO HAVE BOTH DEVICES INSTALLED ON BOARD?

It is not necessary to have an electronic logbook to volunteer for a new device. Early adopters must possess a federally permitted shrimp vessel. Shrimping vessels with an existing electronic logbook will need to maintain the old system for compliance purposes. Participating in this early adopter program is encouraged as this will allow us to compare the new and old systems.

### WHAT WILL THE NEW SYSTEM COST FOR NON-EARLY ADOPTERS?

Standard expenses for systems vary. The cost for the new device, including fees for installation and transmission, could cost upwards of \$3,000 plus cellular service charges. Volunteers for this early adopter program will have costs covered for the new device, installation and maintenance, and 2 years of cellular service.

### FM A SHRIMP VESSEL OWNER/OPERATOR. WHY WOULD I WANT TO PARTICIPATE?

By participating, you will help NOAA Fisheries maintain the sustainability of the Gulf shrimp fishery and important shrimping grounds. If you choose, you can access and store the data from your vessel(s) for your own purposes and choose the device that best suits your needs. You will be able to do this at no cost to you.

### WHEN WILL OTHER SHRIMP VESSELS (NON-EARLY ADOPTERS) BE REQUIRED TO INSTALL THESE NEW UNITS?

At this stage, no requirements are in place for use of the new devices in the Gulf of Mexico federal shrimp fishery. Shrimp vessel owners should stay up to date on any changes to federal shrimping regulations through mail notifications and Fishery Bulletins.

## Contact Us

Sign up: **Nathan Putnam**  
(205) 218-5276, [nputman@lgl.com](mailto:nputman@lgl.com)  
Science: **Alan Lowther**  
(305) 209-7586, [alan.lowther@noaa.gov](mailto:alan.lowther@noaa.gov)  
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(786) 909-6079 [meaghan.emory@noaa.gov](mailto:meaghan.emory@noaa.gov)

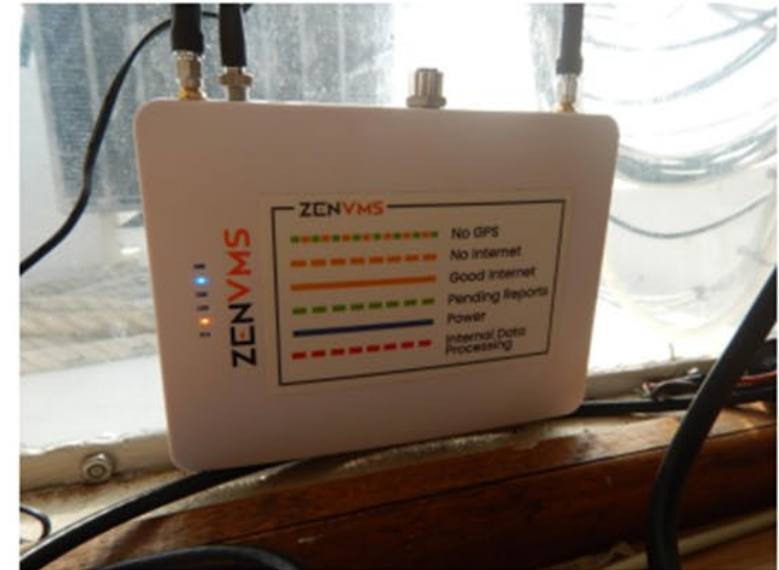
# Currently approved devices for the Early Adopter Program



Boat Command



Nemo



ZenVMS



**Early Adopter Program for the  
Gulf of Mexico Shrimp Fishery**

**Vessel Monitoring Systems  
(VMS)**



Zen VMS



Boat Command VMS



NEMO VMS

<b>Retail Cost* (Your Price):</b>	\$549 <del>\$1,095</del> (\$0)	\$199 (\$0)	\$574 (\$0)
<b><u>Reliability</u></b> Pilot Test Success Rate**: Vessels Monitored Successfully: Positions Correctly Reported*: NOAA Type Approved?	93 % (14/15) 98.2 % YES	80 % (4/5) 97.3 % YES	60 % (3/5) 85.6 % YES
<b>Annual Cellular Fees* (Your Price):</b>	\$99 (\$0)	\$179 (\$0)	\$180 <del>\$349</del> (\$0)
<b><u>Specifications</u></b> Voltage: Hardwired: Dimensions: Waterproofing:	9-60 DC, 110 AC NO 7.5 x 5.5 x 1.5" IP67	9-32 DC, 110 AC Optional 4.5 x 3.5 x 3.6" IP66	3.7 V, 5.2 A (battery) NO 8.75 x 5 x 4" IP67
<b><u>Install Location</u></b> VMS Terminal: LTE/GPS Antenna:	Interior Interior/Exterior	Exterior Exterior	Exterior Exterior
<b><u>Warranty</u></b>	2 Years	2 Years	2 Years
<b><u>Features</u></b> Optional Web-based Tracking Interface: Annual Interface Fee* (Your Price):	 \$99 (\$0)	 \$0 (\$0)	 \$0 (\$0)

**Get yours today! Contact Nathan Putman**  
[nputman@lgl.com](mailto:nputman@lgl.com), Office: 979-846-7000, Cell: 205-218-5276

\* Cost per tracking unit

\*\* Percent of shrimp vessel pilot tests without large (>6hr) data gaps.

+ Percent of GPS positions correctly reported during pilot tests.

# Early Adopter Program - Results through February 26, 2025

**~225 total requests, 120 installations**

*173 requests (~75%) came through direct, “personal interactions” with LGL scientists – dockside or shrimp industry meetings*

*~112 requests (~50%) have cELB units on board.*

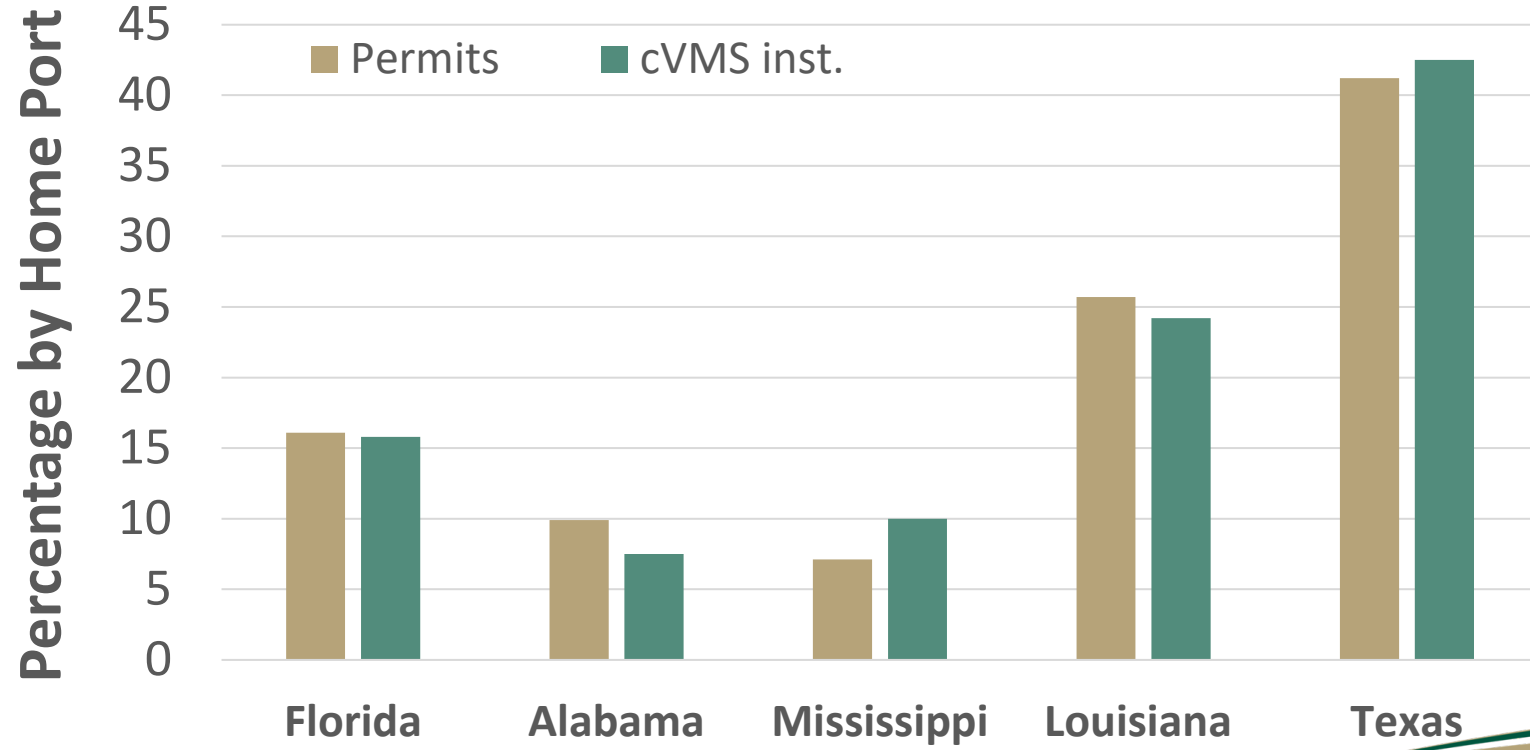
# Early Adopter Program - Results through February 26, 2025

~225 total requests, 120 installations

Vendor	Unit	Florida	Alabama	Mississippi	Louisiana	Texas	Total
Woods Hole Group	Nemo	0	0	0	0	7	7
Viatrix	Boat Command	0	3	3	19	21	46
Remote Data Sensing	ZenVMS	19	6	9	10	23	67
Total Devices to Date		19	9	12	29	51	120

# Early Adopter Program - Results through February 26, 2025

Pretty good representation of volunteers (at the state level)



## Early Adopter Program – Next Steps

- With initial funds received, 120 installations of cVMS units were completed at a cost of ~\$2,896 per unit.
  - Assuming remaining funds will continue paying cell service fees on these units.
- With upcoming funds we expect to add another ~180 cVMS at a costs of ~\$2,444 per unit
  - Additional efficiency achieved through previous EAP outreach and synergies for a new program to collect effort data for state-permitted shrimp vessels.
- **Please continue to encourage your friends and family to sign up for the Early Adopter Program (and for the state effort monitoring program)!**

## Early Adopter Program – THANKS!

Gregg Bray (Gulf States)

Alan Lowther (NOAA)

Meaghan Emory (NOAA)

Lisa Belskis (NOAA)

Becky Smith (NOAA)

Jo Williams (NOAA)

John Walter (NOAA)

John Quinlan (NOAA)

Timothy Rowell (NOAA)

Adriana Serra (NOAA)

Brian Webster (Boat Command)

Michael Webster (Boat Command)

Greg Lovingfoss (ZenVMS)

Luis Soltero (ZenVMS)

Jason Surma (NEMO)

Nick Salvi (NEMO)

William O'Toole (NEMO)

Lewis Naisbett-Jones (LGL)

Bobby Nguyen (LGL)

## Early Adopter Program

First come, first serve. Sign up for waiting list.

Contact us if interested or with questions!

[nputman@lgl.com](mailto:nputman@lgl.com); 205-218-5276

# Early Adopter Program - through February 25, 2025

Pretty good representation (at the state level)

Shrimp Fleet	Florida	Alabama	Mississippi	Louisiana	Texas
Permits (#)	194	119	85	310	496
Permits (%)	16.1%	9.9%	7.1%	25.7%	41.2%
cVMS (#)	19	9	12	29	51
cVMS (%)	15.8%	7.5%	10.0%	24.2%	42.5%