

*Science, Service, Stewardship*



# HMS Vessel Monitoring Systems (VMS) Update

September 21, 2010

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**NOAA  
FISHERIES  
SERVICE**



## Presentation Intentions

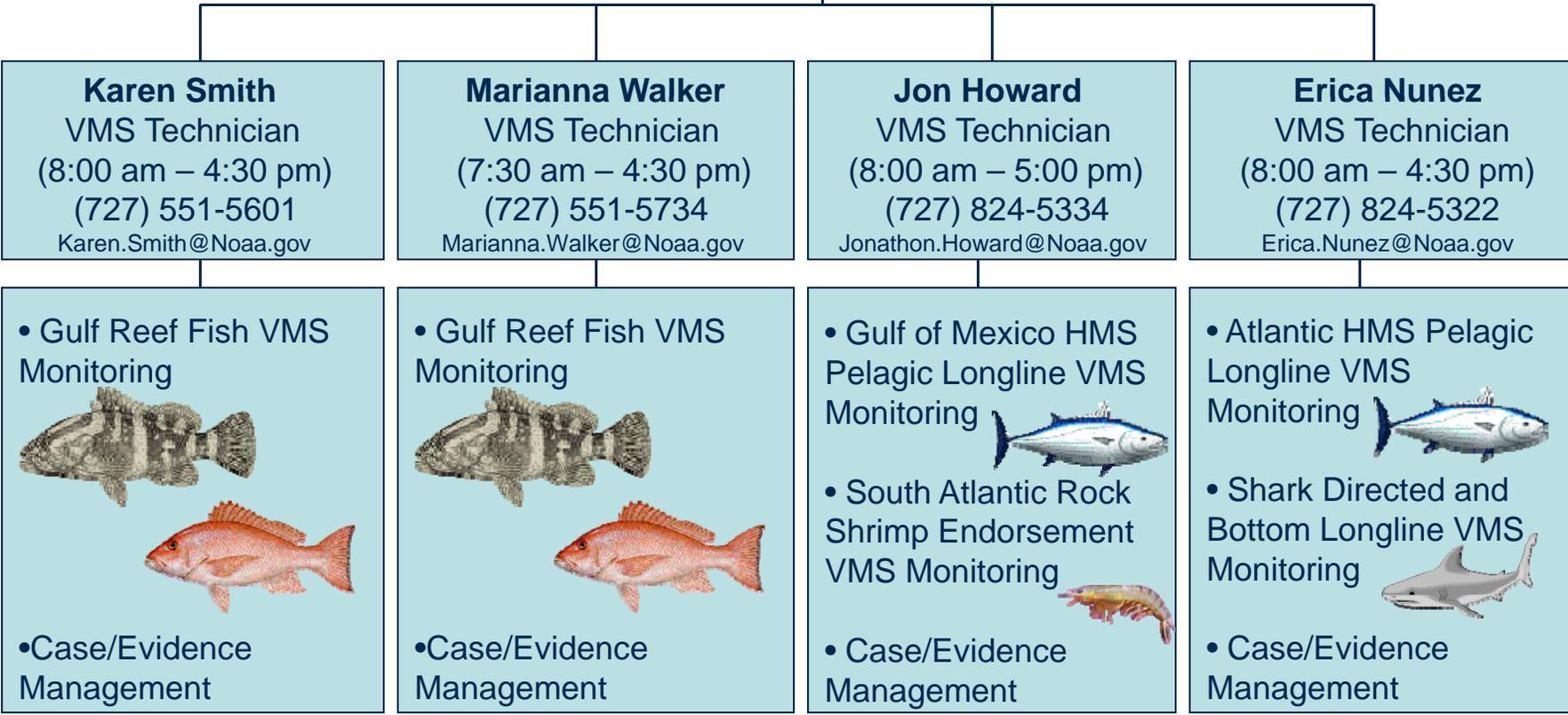
- This presentation is intended as a follow-up to the brief presented on May 13, 2010 by CDR Brian Parker
- It expands upon proposed changes to existing HMS VMS regulations
- It doesn't cover the history/background as the earlier brief did.

# NOAA FISHERIES SERVICE



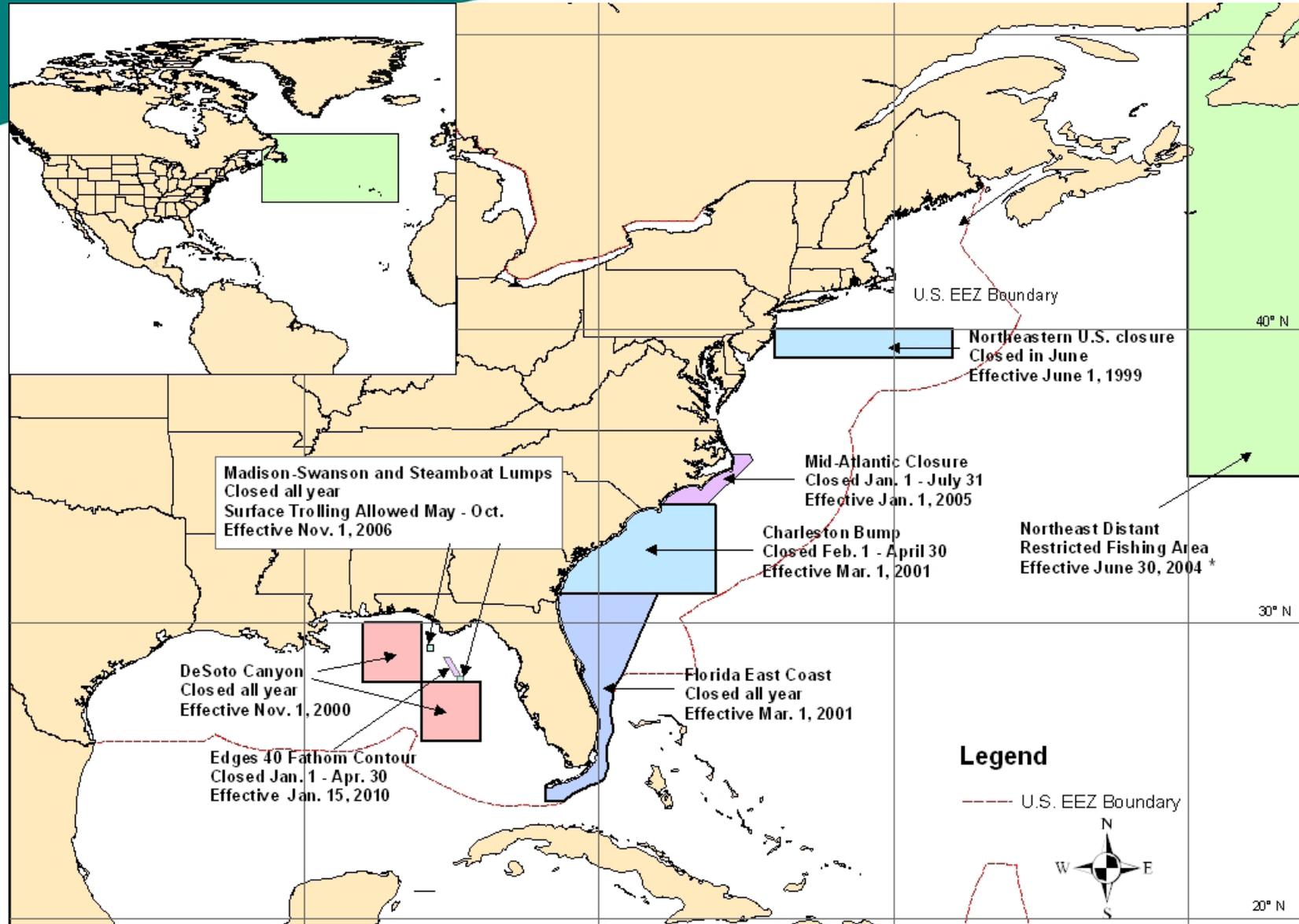
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## NOAA Fisheries - Southeast Division - VMS Team

# HMS Closed Areas





# HMS VMS requirements

- **2003 September 1:** Permitted HMS vessels away from port with pelagic longline gear on board
- **2004 November 15:** Vessels issued a directed shark LAP that are away from port with a gillnet on board during the right whale calving season specified in the Atlantic Large Whale Take Reduction Plan
- **2005 January 1:** Vessels issued a directed shark LAP that are away from port with bottom longline gear on board, are located between 33°00 'N lat. and 36°30'N lat., and the mid-Atlantic shark closed area is closed to bottom longline fishing



# HMS VMS requirements

- Must have NMFS-approved VMS devices installed and operating whenever leaving port, from 2 hours prior to departure until returning to port
- While at sea, the unit must operate without interruption
- After a fishing trip during which interruption of automatic position reports has occurred, the vessel's owner or operator must replace or repair the VMS unit prior to the vessel's next trip
- Repair or reinstallation of a VMS unit or installation of a replacement, including change of communications service provider, shall be in accordance with the checklist provided by NMFS and require the same certification



# HMS VMS requirements

- Vessels subject to the VMS requirements must allow NMFS, the USCG, and their authorized officers and designees access to the vessels' position data obtained from the VMS at the time of or after its transmission to the vendor or receiver, as the case may be.
- Position reports are secure from vessel to end user. Enforcement's database and monitors are secure.



## Existing HMS VMS Units

- Majority are older MTU (Mobile Transmitter Unit) type VMS units vice the new E-MTU (Enhanced – Mobile Transmitter Units) type VMS units
- New Type Approval Regulations require all new VMS units to be E-MTU units
- Older units are grandfathered while still operating properly, however they have limited functionality and are effectively “pinger only” type VMS units



## Some Examples of E-MTU VMS Benefits

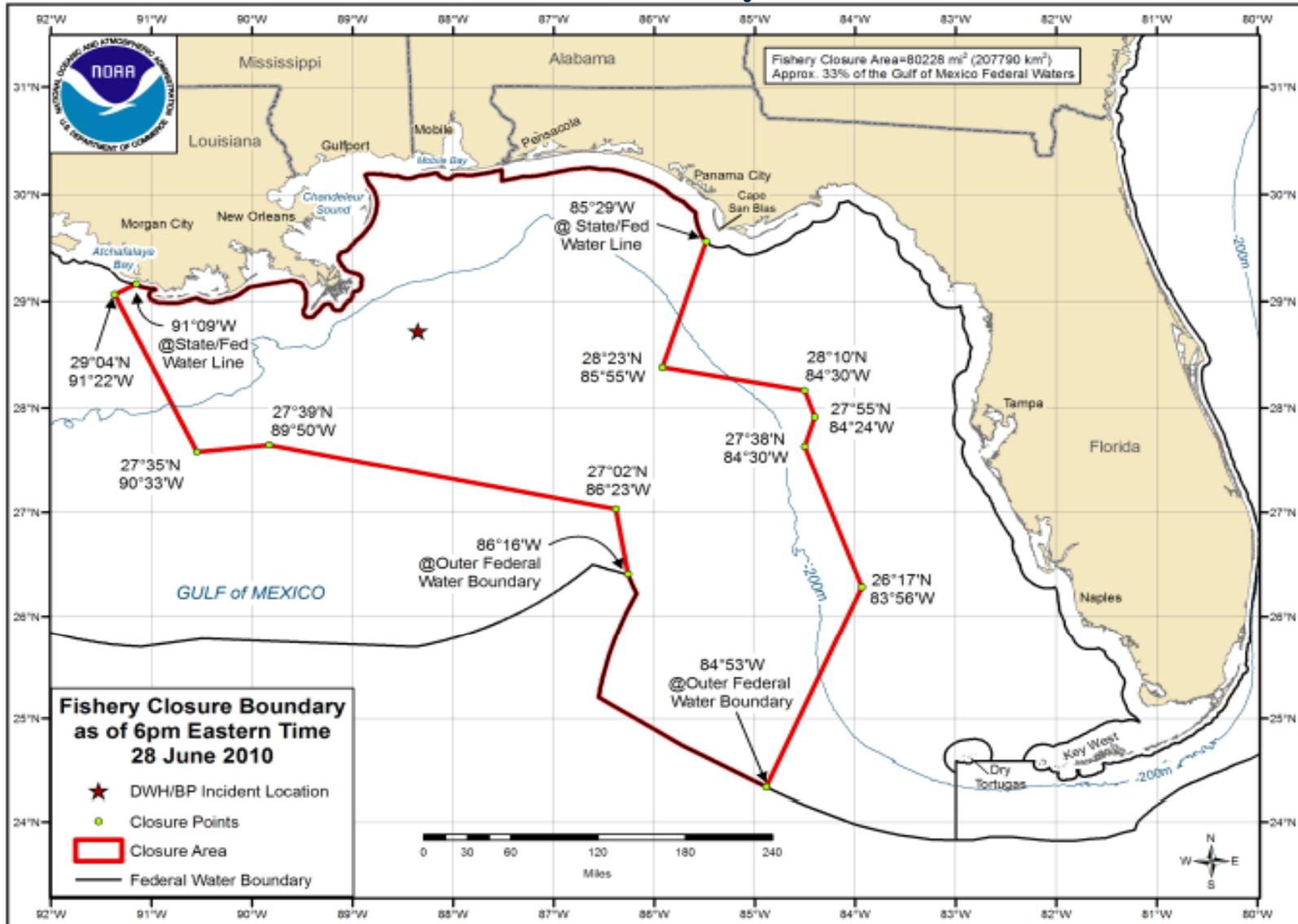
- Newer E-MTU VMS units have ability to send/receive e-mail
  - Provides capability to owners, operators as well as NOAA offices
  - Enables NOAA to send critical fishery information to vessels at sea (fishery closures, area closures, etc)
- Capability to send E-Forms which provides greater flexibility and timeliness to fishery managers
- Capability for owners to track actual fishing vessels throughout their fishing trip
  - Easily monitor location of vessel to closure areas, severe weather
  - Enables owner to monitor vessels VMS reporting to ensure compliance with VMS regulations

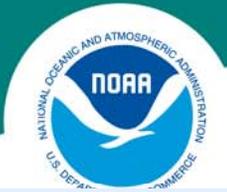


## Actual VMS E-mail Message

- **“A HURRICANE WILL IMPACT THE COASTAL AND OFFSHORE AREA OF THE EASTERN UNITED STATES WITHIN THE NEXT 72 TO 96 HOURS. WINDS IN EXCESS OF 96 KNOTS AND STORM SURGE OF 8 FEET ARE EXPECTED; HEAVY RAIN AND COASTAL FLOODING MAY ALSO ACCOMPANY THE STORM. ALL BOATS ARE URGED TO OBTAIN FURTHER WEATHER INFORMATION AND PREPARE ACCORDINGLY.”**
- Actual E-mail message transmitted August 31, 2010 to all VMS equipped vessels off the East Coast
- Most HMS vessels unable to receive message

# Deepwater Horizon Spill





## Actual E-Mail Message

From: NMFS.OLE.SE@noaa.gov  
To: [REDACTED]@vmstracking.com  
Cc:  
Subject: EMERGENCY CLOSURE AREA - [REDACTED]

Sent: Mon 6/28/2010 2:42 PM

Due to the Deepwater Horizon Oil Spill, an updated emergency fishing closure was Enacted Wednesday, June 28, 2010 effective 6PM ET for all fishing south of Louisiana state waters west of the mouth of the Mississippi River to waters off of Cape San Blas, Florida and out to the central/southern Gulf the next 10 days. Your vessel is currently operating within the closed area and should not engage in fishing activity inside this closed area or your catch may be placed at risk.

This area is bound by the following coordinates and is closed to all fishing: From the point where 85-29W intersects with the state boundary; proceeding southwesterly to 28-23N and 85-55W; then southeasterly to 28-10N and 84-30W; then southeasterly to 27-55N and 84-24W; then southwesterly to 27-38N and 84-30W; then southeasterly to 26-17N and 83-56W; then to the point where 84-53W intersects with the Federal water boundary; then northerly along the boundary to where the point 86-16W intersects the outer Federal water boundary; then northwesterly to 27-02N and 86-23W; then northwesterly to 27-39N and 89-50W; then southwesterly to 27-35N and 90-33W; then northwesterly to 29-04N and 91-22W; then northeasterly to the point where 91-09W intersects with the 3 nautical mile Louisiana state boundary; then along the seaward limit of Louisiana's waters. Be advised, the closed area boundaries may be updated each day at 12:00 Eastern Time. Please contact this office or any Coast Guard station via sat phone or HF/VHF radio for additional information.

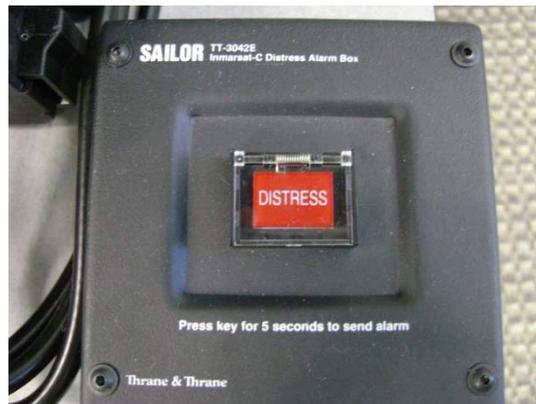
NOAA Office of Law Enforcement

- E-mails sent to all VMS equipped vessels impacted by changing oil spill closure area
- Most HMS Vessels unable to receive messages



## Search And Rescue Tool

- Certain models can send distress messages, including positional data, from their VMS unit if you choose that capability from your vendor
- Does not replace the EPIRB and established Coast Guard Rescue Coordination Center as the primary safety tool, but it provides a secondary capability that has proven extremely useful to fisherman
- Can also receive targeted fleet weather updates and severe weather updates on EMTU VMS units





## F/V PETE'S DREAM CASE

- 65 Foot F/V PETE's DREAM was overtaken by Hurricane Ike on September 10<sup>th</sup>, 2008 while trying to outrun storm and return to port after fishing trip in Caribbean Sea.
- Pounding waves split seam on vessel causing them to go dead in the water. Extremely heavy rolls while sitting in trough of 25 foot waves/100 plus MPH winds prevented them from deploying EPIRB mounted on top of cabin.
- Hit "Distress Button" on their VMS unit which was only Alert Coast Guard received. CG Falcon Jet deployed two dewatering pumps to vessel, keeping it afloat until Hurricane passed.
- **"It literally saved our lives."** quote by Captain Kris Guidel in *St. Petersburg Times* on October 5<sup>th</sup>, 2008



## E-Form Example Currently in Use in Gulf Reef Fishery

### Trip Declaration and Catch Reporting System

Trip Declaration

Reports

#### Type

Southeast IFQ

Use this Report to submit a Southeast IFQ 3-Hour Notification:

State:    
City:    
Location:    
Dealer:    
Landings:  :   EST  Today

Request Confirmation Code through E-Mail (at additional cost)

**Shallow-water Grouper:** (Scamp, Rock/Red Hind, Black, Yellowmouth, Yellowfin)  
**Deep-water Grouper:** (Speckled Hind, Yellowedge, Misty, Warsaw, Snowy)  
**Tilefish:** (Goldface, Blackline, Anchor, Blueline, Golden)

#### Share Category Est Gutted Weight

Red Snapper:	<input type="text"/> 0	(lbs)
Gag Grouper:	<input type="text"/> 0	(lbs)
Red Grouper:	<input type="text"/> 0	(lbs)
Shallow Water Grouper:	<input type="text"/> 0	(lbs)
Deep Water Grouper:	<input type="text"/> 0	(lbs)
Tilefish:	<input type="text"/> 0	(lbs)

Send Report



## Issues Routinely Observed by VMS Staff

- HMS VMS units were not required to be installed by a certified marine electrician
- Results in a variety of system failures based on wiring issues and placement of antennas
- Regular outages seen requiring additional work by VMS Technicians





## Inability to Easily Determine if Unit is Properly Reporting

- Older “pinger only” VMS units are very difficult for fisherman to determine if they are properly reporting
- Newer E-MTU units enable fisherman to easily determine status of VMS unit by looking at their screen





## Need for Declaration System

- Currently no requirement, or capability, to report gear type (longline, buoy gear, green stick, etc)
  - Limits VMS Technician's ability to determine whether vessel is permitted where they are currently fishing
  - Certain areas prohibit longline, but not buoy gear
- Currently no requirement, or capability, to report targeted species
  - Limits VMS Technician's ability to determine what vessel is fishing for
- Both instances currently require Law Enforcement action/boarding to determine actual activity/gear



# Reimbursement for VMS System Purchases

- On a July 21, 2006 Federal Register notice, NOAA announced Federal funds were available to vessel operators and owners who purchased VMS equipment “for the purpose of complying with fishery regulations requiring the use of VMS which became effective during FY 2006.
- In 2008, NMFS announced revisions allowing up to \$3100 reimbursement towards the purchase of a VMS unit to comply with fishery regulations requiring the use of a VMS unit.



## Reimbursement for VMS System Purchases

- Currently, HMS fishers are not eligible for this reimbursement as the requirements for HMS VMS predate FY 2006
- However, the Office of Law Enforcement and the NOAA Fisheries Service are currently pursuing a policy change that would authorize HMS vessels to received reimbursement to comply with any new VMS regulations (NOT YET APPROVED OR FINALIZED)
- There is currently \$6 million dollars in the VMS Reimbursement account
- VMS Reimbursement funds are on a “first come” basis and are not an endless fund. In other words, VMS Reimbursements are only guaranteed if funds are currently available.



## VMS Staff Recommendations

- Enact VMS Regulatory change requiring shift to E-MTU VMS units (once reimbursement determination made)
- Require certified marine electrician installation
- Require Declaration system that provides gear type and targeted fishery declaration
- Take advantage of increased capability of E-MTU VMS units and develop E-Forms to assist in timely catch reporting



## Thank You

- If you have any questions or require more in depth statistics or information on the SED VMS program, please contact:

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