



# Michigan / FirstNet Consultation Meeting

## Great Lakes Response & Enforcement



February 23, 2016

**DEPARTMENT OF NATURAL RESOURCES  
LAW ENFORCEMENT DIVISION**

# DEPARTMENT OF NATURAL RESOURCES

## LAW ENFORCEMENT DIVISION

- 225 Law Enforcement Officers
- Unique enforcement responsibilities
- Unique environment
- Unique needs



Michigan's land surface area = 58,572  
Michigan's Great Lakes surface area = 38,575  
Michigan's total coastline = 3288



Michigan has the second longest stretch of international border with Canada – 721 miles



"FLUID" ENVIRONMENT WITH  
DIVERSE WEATHER CONDITIONS

# CONSERVATION OFFICERS ENFORCEMENT TASKS

- Life Safety Response
- Commercial Fishery
- Charter Fish Industry
- Tribal Fishery
- Border Control
- Human Trafficking
- Drug Trafficking
- Shipwreck Antiquities
- Smuggling
- Overt & Covert Investigations
- Invasive Species
- Pollution Response
- High Profile Events
- Critical Infrastructure Protection
- Homeland Security

# MI DNR PUBLIC SAFETY PARTNERSHIPS

- Canada
- Minnesota
- Wisconsin
- Illinois
- Indiana
- Ohio
- USCG
- USEPA
- USFWS
- US Border Patrol
- DHS
- Tribes







# LTE MARINE ACTIVITY ENHANCEMENT OFFICER SAFETY

## *ACCESS TO REAL TIME DATA & IMAGERY*

- Increase awareness and alerts of developing inclement weather
  - A patrol on Isle Royale in Lake Superior was stranded due to gale force winds and 12' waves emerging with no warning





# LTE MARINE ACTIVITY ENHANCEMENT OFFICER SAFETY

## *DATA & IMAGE SHARING*

- Intelligence regarding wanted and/or dangerous individuals.
- Joint enforcement patrols
  - Recently gaps in cellular communications were identified with USCG on recent border interdiction operations
  - no ability to share images of suspected vessels or vessels of unknown origin between officers



# LTE MARINE ACTIVITY ENHANCEMENT PUBLIC SAFETY

## *DATA & IMAGE SHARING*

- Increased tools for emergency response which could aid in search and rescue missions



AERIAL IMAGES RELAYED FROM SEARCH  
AIRCRAFT TO RESPONDING WATERCRAFT

# LTE MARINE ACTIVITY ENHANCEMENT PUBLIC SAFETY

## *DATA & IMAGE SHARING*

- Increase tools for disaster response
  - Technological disasters



# LTE MARINE ACTIVITY ENHANCEMENT OFFICER SAFETY

## *ACCESS TO REAL TIME SATELLITE IMAGERY*

- Increase on-the-water knowledge of possible hazards or changes in structures due to environmental conditions
  - Floods due to rain or dam failures, erosion due to sea conditions or water levels, reef formations due to changing conditions

**Milwaukee**

South Lake  
Buoy 45007

**Chicago**

**National Weather Service  
Milwaukee/Sullivan**



# LTE MARINE ACTIVITY ENHANCEMENT OFFICER SAFETY

## *DATA & IMAGE SHARING*

- Provide capabilities in covert operations on remote areas of the Great Lakes and islands by providing shore based officers and officers stationed on response vessels with immediate, real time location of investigators.
  - Undercover officers routinely conduct investigations of illegal chartering operations that take them miles out onto the Great Lakes



# LTE MARINE ACTIVITY ENHANCEMENT INVESTIGATIONS

## *DATA & IMAGE SHARING*

- Rapid dissemination of intelligence during surveillance and covert operations
  - Officers on surveillance details would be able to share images of suspect vessels with officers on patrol vessels while on the water leading to increased effectiveness with identifying and stopping suspect vessels.



# LTE MARINE ACTIVITY ENHANCEMENT INVESTIGATIONS

## *ACCESS TO REAL TIME SATELLITE IMAGERY*

- Satellite imagery would assist with investigation locations in remote areas of the Great Lakes to include islands which could be used to direct patrol efforts quickly.



# LTE MARINE ACTIVITY ENHANCEMENT HOMELAND SECURITY

## *ACCESS TO REAL TIME SATELLITE IMAGERY*

- Real time access by officers of various agencies, jurisdictions and homeports to receive the most up to date information during Homeland Security details.
  - Suspect vessel and suspicious activities
  - Intelligence gathering and dissemination



USS Freedom





# LTE MARINE ACTIVITY ENHANCEMENT RESOURCE PROTECTION EFFICIENCY

## *DATABASES & REPORTING MECHANISMS ACCESS*

- Increase response times to potential violation situations and allow for more efficient commercial fish industry inspections
  - Currently officers have to spend large amounts of time and effort travelling to areas to attempt to conduct commercial fish vessel inspections with no guarantee that vessels are out.





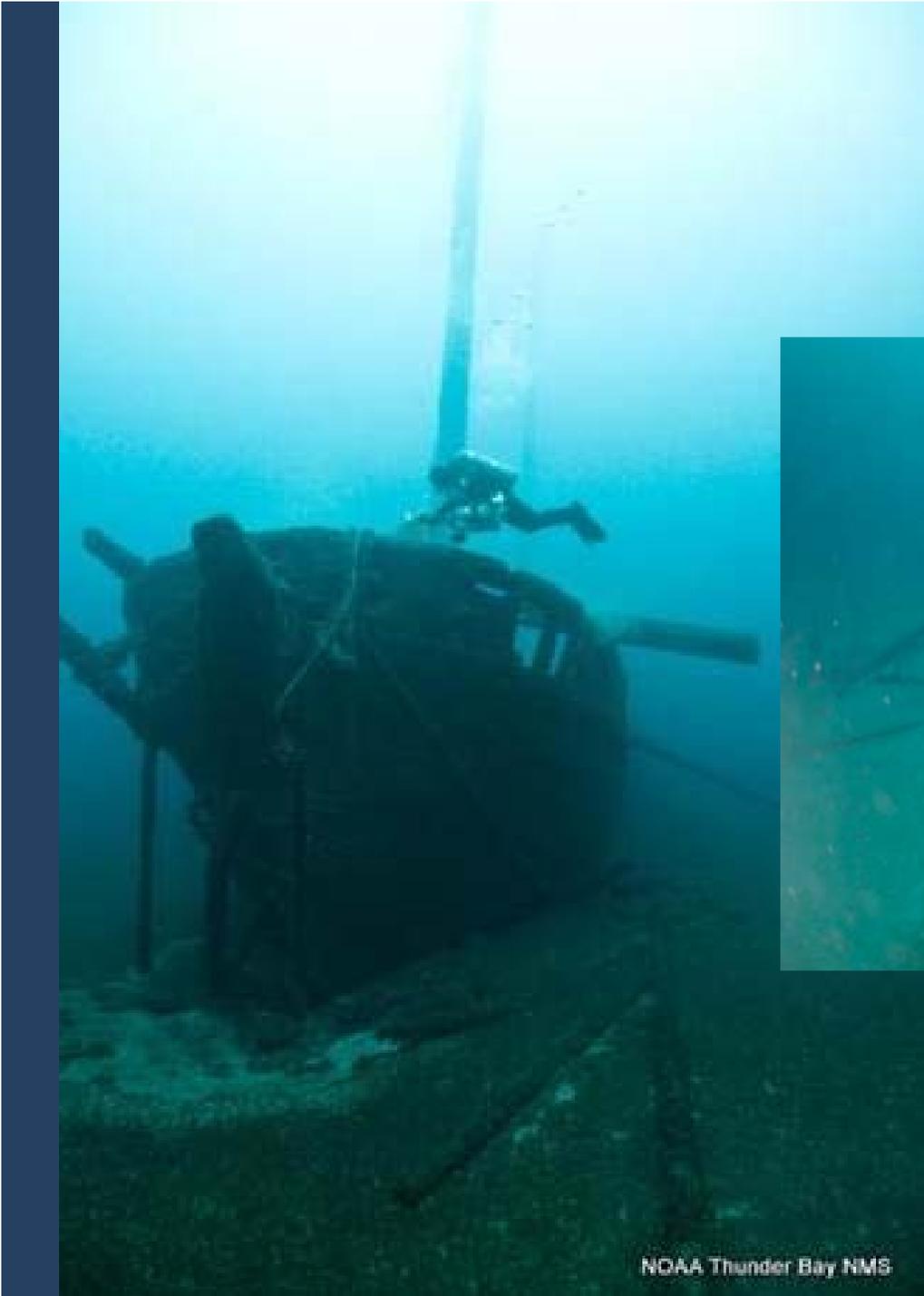
# LTE MARINE ACTIVITY ENHANCEMENT RESOURCE PROTECTION EFFICIENCY

## *ACCESS TO REAL TIME SATELLITE IMAGERY*

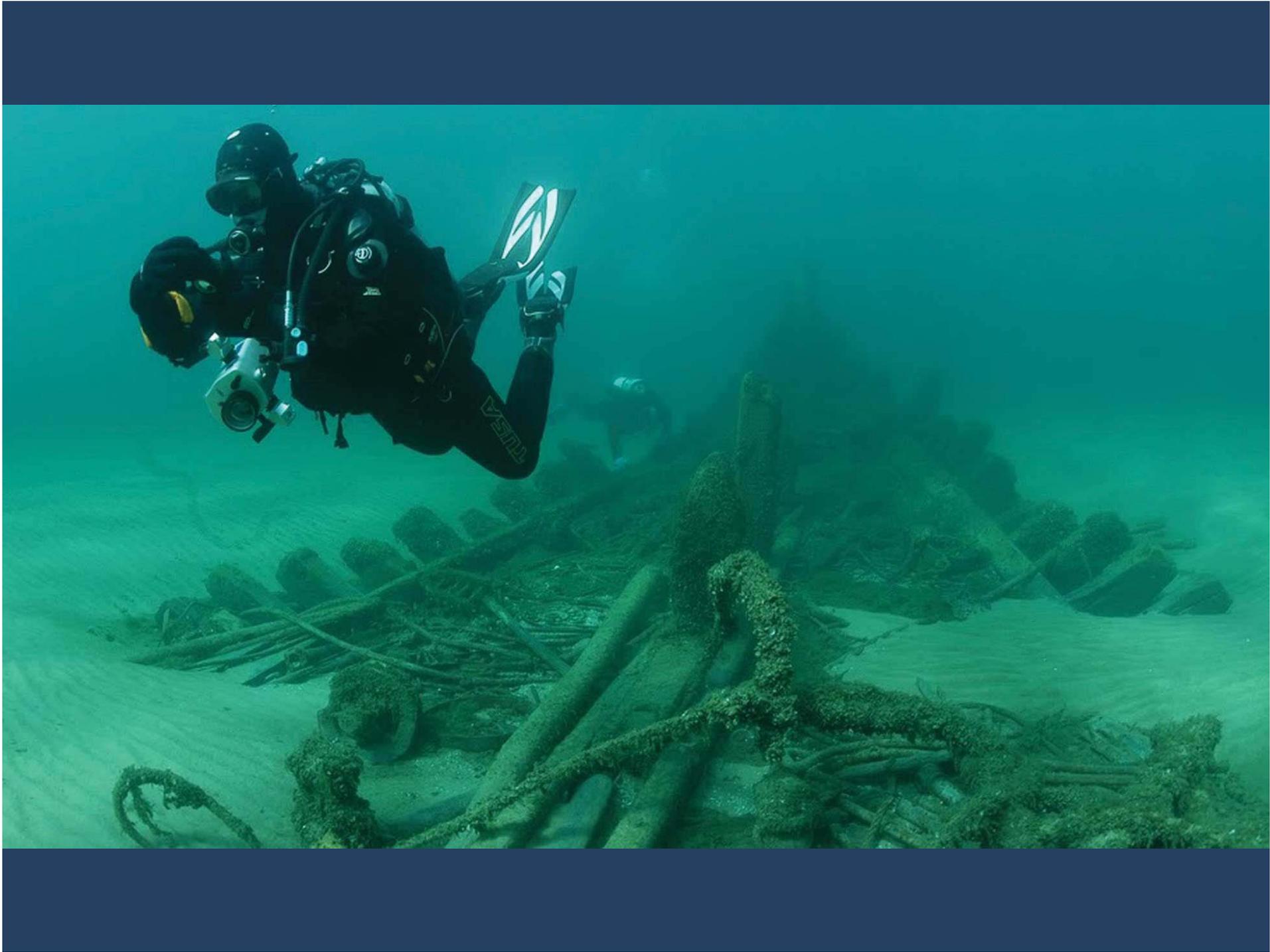
- Establish capability to monitor lake trout refuges that are miles off shore to determine if illegal fishing is occurring.
  - Refuges cover hundreds of miles of surface area.
  - Commercial fishing operations commence on thousands of miles of Great Lakes waters.



860-SQUARE-MILE LAKE MICHIGAN REFUGE



NOAA Thunder Bay NMS



# LTE MARINE ACTIVITY ENHANCEMENT RESOURCE PROTECTION EFFICIENCY

## *ACCESS TO REAL TIME DATA & IMAGERY*

- Establish capability to monitor known shipwrecks, high tech dive operations and salvage operations
  - The current capability to monitor these site and activities is by chance.





The Michigan DNR Law Enforcement Division continues the proud tradition of protecting Michigan's Great Lakes resources for over 125 years





## User Requirements for a Broadband Network

- A cost-effective Solution
- Information Sharing to increase Efficiency and Capability
- Coverage to Save Lives (First Responders, Citizens, and Victims)
- Hardened Sites to improve Reliability
- Interoperability - Response and recovery requires hundreds of specialized organizations that vary with every incident

