Ministry of agriculture - Directorate of fisheries

Croatian Vessel Monitoring System (VMS)

2013.

Croatia Vessel Monitoring System

Introduction

General VMS functions:

- Control of restricted and closed areas

  - Surveillance of fishing operatins, position, course and speed …

    - Assistance in conventional surveillance methods of fisheries inspection by making them more efficient in time period

      - Data cross checking

        - Gathering information for e-logbook system

Croatia Vessel Monitoring System

Introduction
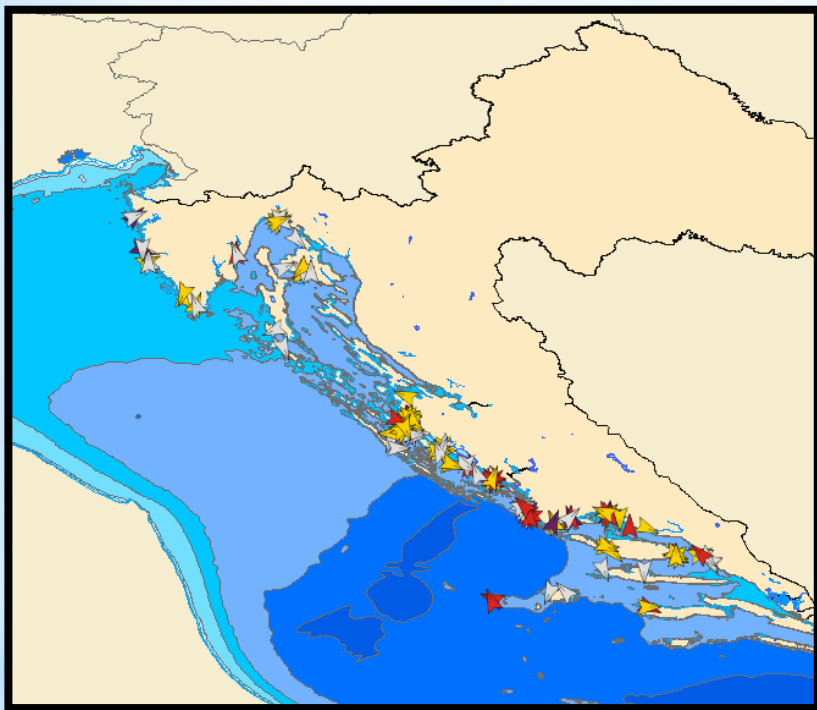
- First instalations in 2007.

  - About 350 devices installed

    - Both satellite and GPRS communication channels
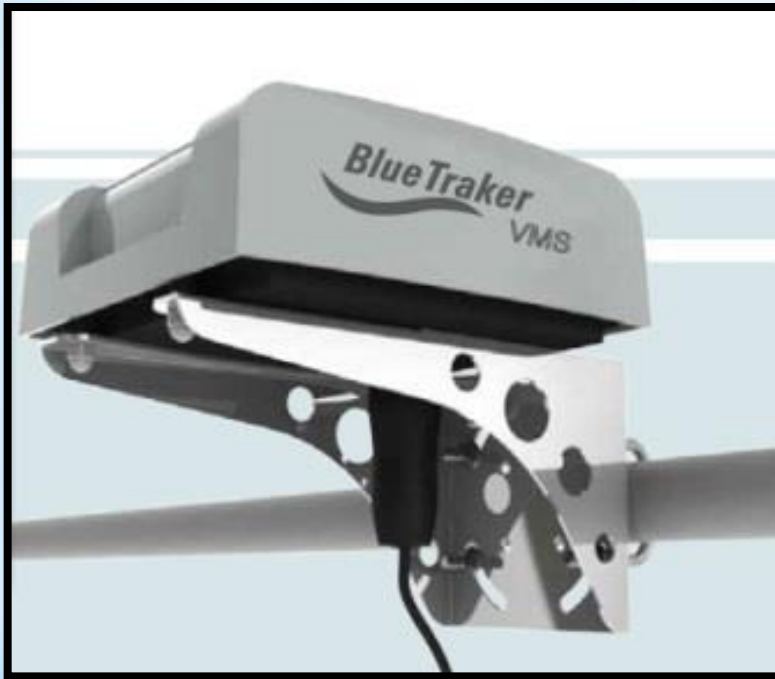
Croatia Vessel Monitoring System

Device

- The BlueTraker VMS solution

  - Hybrid VMS device

    - Irridium and GSM/GPRS

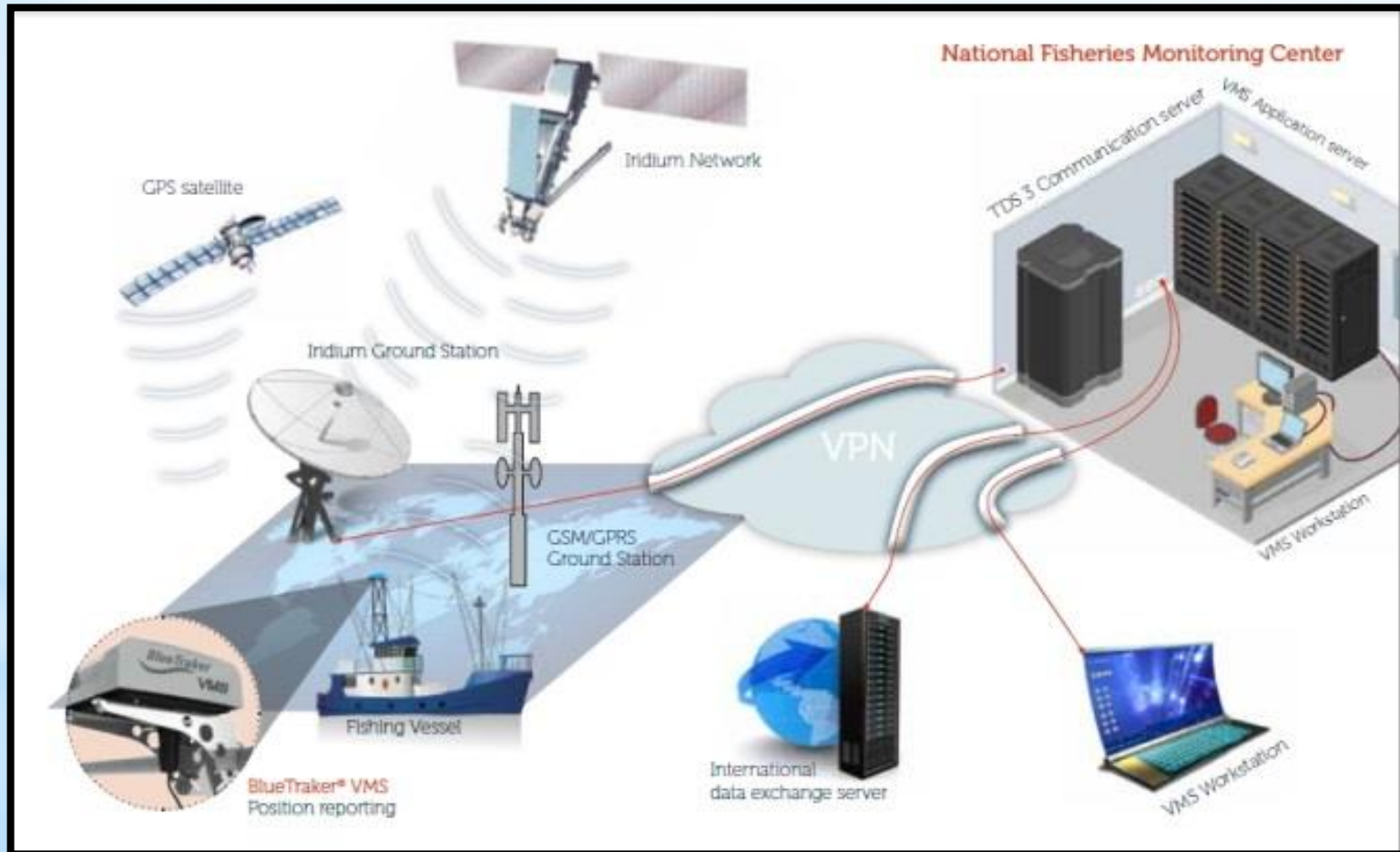# Croatia Vessel Monitoring System

Device

Design and operation
• robust, weather resistant double shell housing,
• mechanically and electrically fully integrated design
containing all communication modules and SAT, GSM
and GPS antenna,
• exceptional autonomous operation of up to 72 hours, with embedded back-up battery,
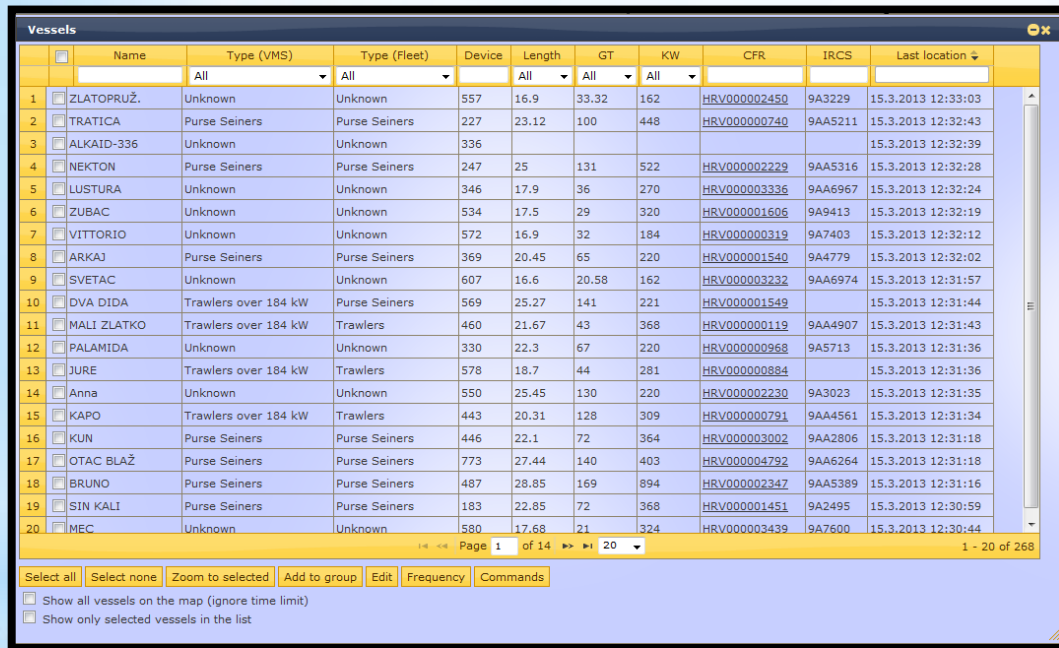• compatible with any third party VMS software

Croatia Vessel Monitoring **System**

VMS Communications sheme
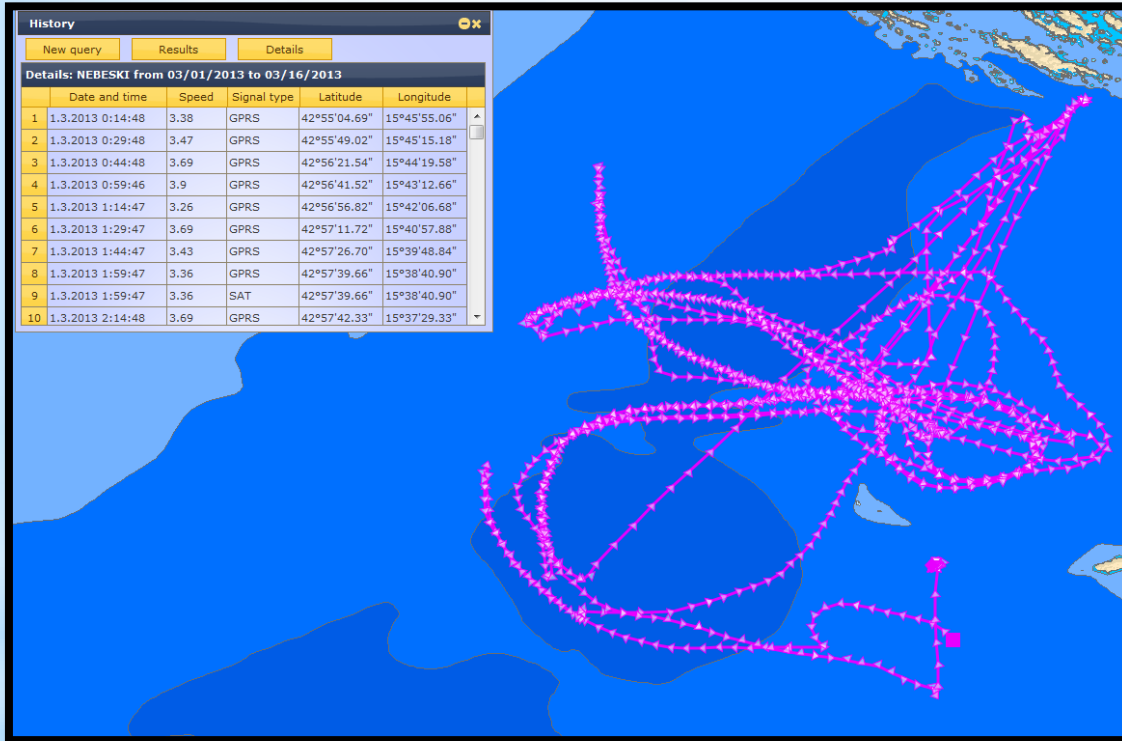
Croatia Vessel Monitoring System

Fishing fleet

- **About 350 fishing vessels with VMS devices**

- **100 new devices by the end of April 2014.**

- **Total goal of around 450 vessels**

Vessel monitoring system

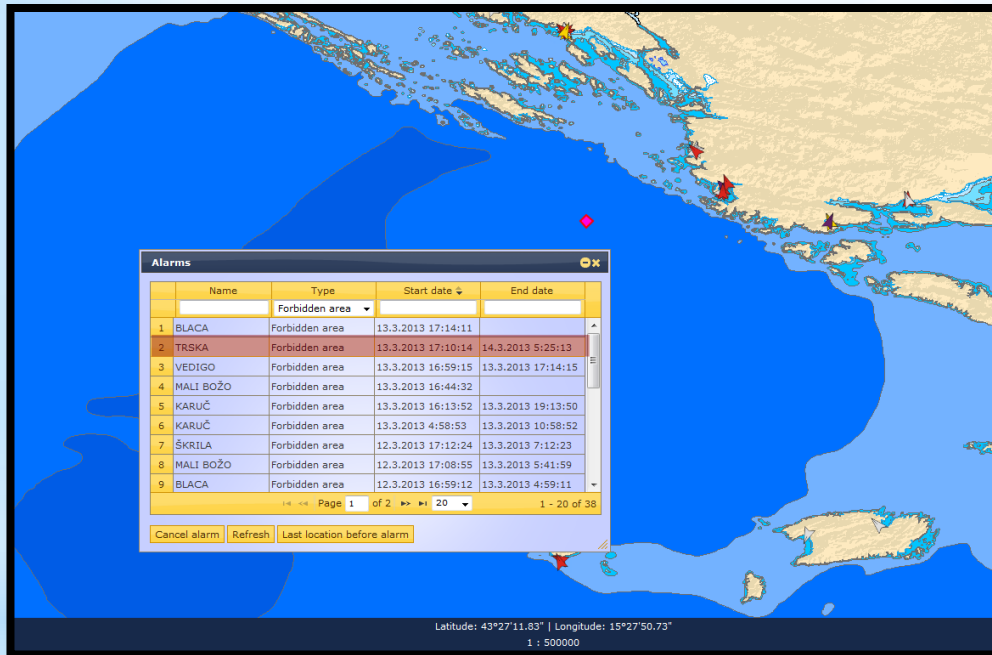## Functionality - history

Multiple levels of authority

- FMC – complete history

- Non specific inspection - only current position
  - Ministry of the Interior Affairs
  - Ministry of Maritime Affairs, Transport and Infrastructure
  - Coast Guard

Croatia Vessel Monitoring System

Functionality - alarms

- Entry into EFPZ (Ecological and Fishery Protection Zone)

- Return to territorial sea (from EFPZ)

- Exiting EFPZ

- Retention in EFPZ for longer than 24 hours

- Prohibited fishing zones

- Entering protected areas (national parks)

- Power supply - cessation of signal transmitting

- Checking the e-logbook and time of departure from port

- Checking the e-logbook and time of return to the port

- Fishing in fishing zones for which the vessel is unlicensed

Croatia Vessel Monitoring System

Functionality – layer projections

- Data layers

    -fishing zones
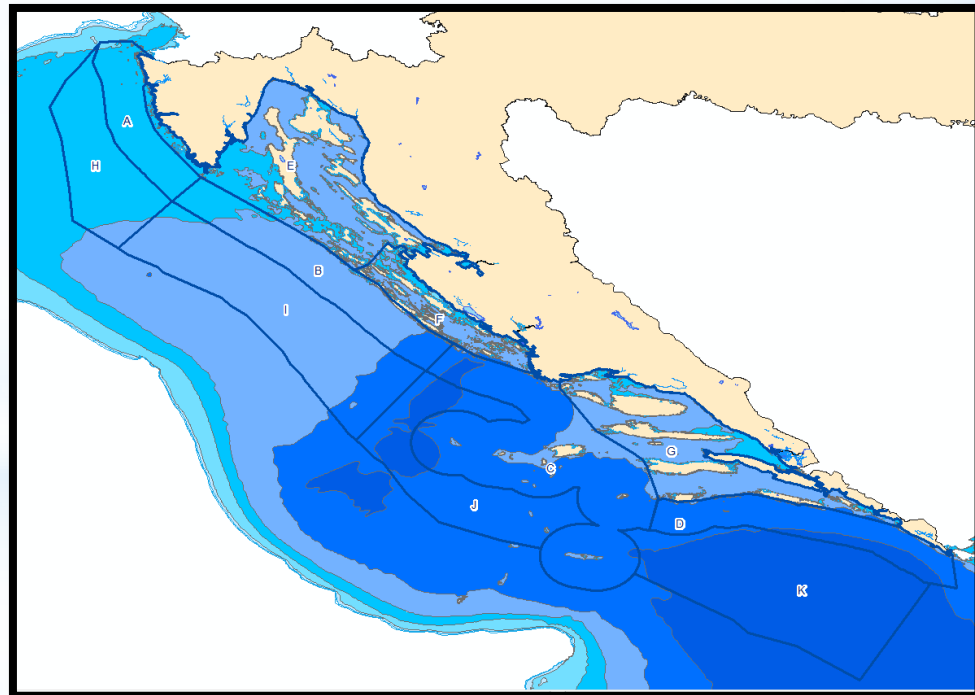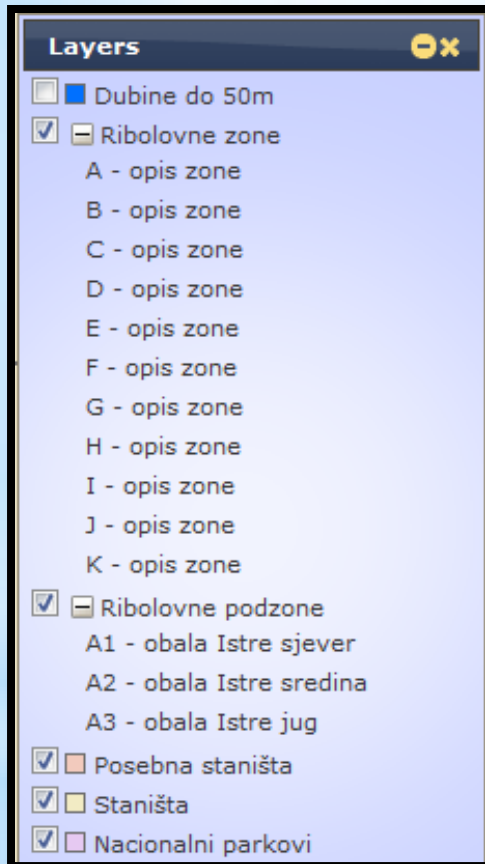
Croatia Vessel Monitoring System

Functionality – layer projections
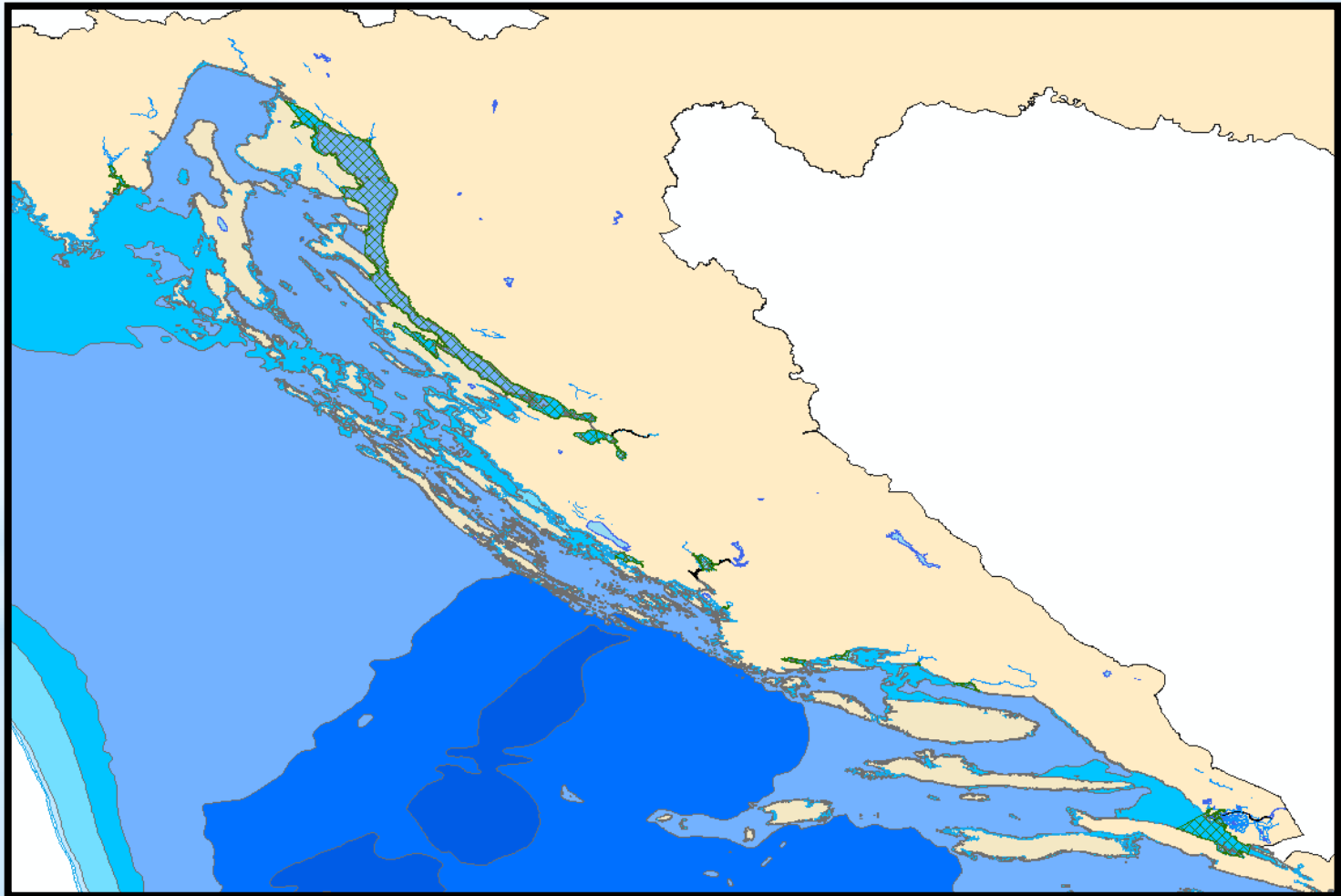
-special habitats
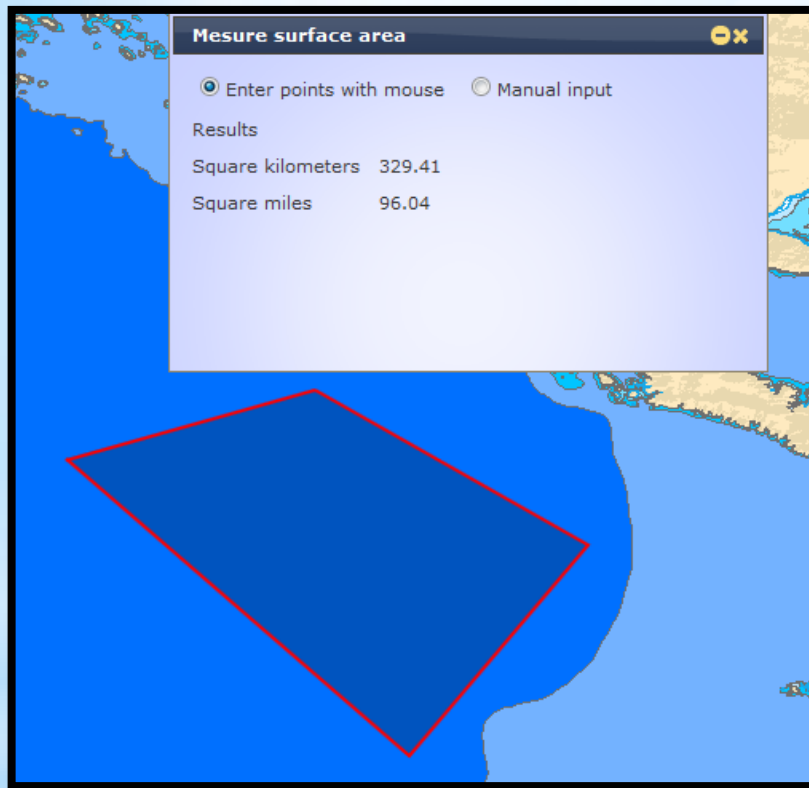
Croatia Vessel Monitoring System

Functionality – layer projections

-national parks

Croatia Vessel Monitoring System

Functionality

- Map measurement
  - Measure surface area
  - Measure lenght

- Manual input of coordinates

Croatia Vessel Monitoring System

Croatia VMS future goal:

• improve functionality with other systems such as:

  a. E-logbook system -automatic input of SAT position (catch and landing place…)

                  - transfering data in low or no GSM signal areas

  b. AIS system

    •   Efficiency improvement of conventional inspection at sea

      •   Installing VMS devices on all fishing vessels over 12m of lenght overal and on all trawlers and purse seiners no matter the length

        •   Connecting other measuring appliances (fuel consumtion probes, depth and temperature probes, fishing tool activity reports…)

Hvala

Thank you

Josip Marković/Damir Grgić