



MONTENEGRO

GFCM

Vessel Monitoring System in Montenegro

Nada LAKICEVIC
nada.lakicevic@mpr.gov.me

Tunisia, 01-02. October 2013



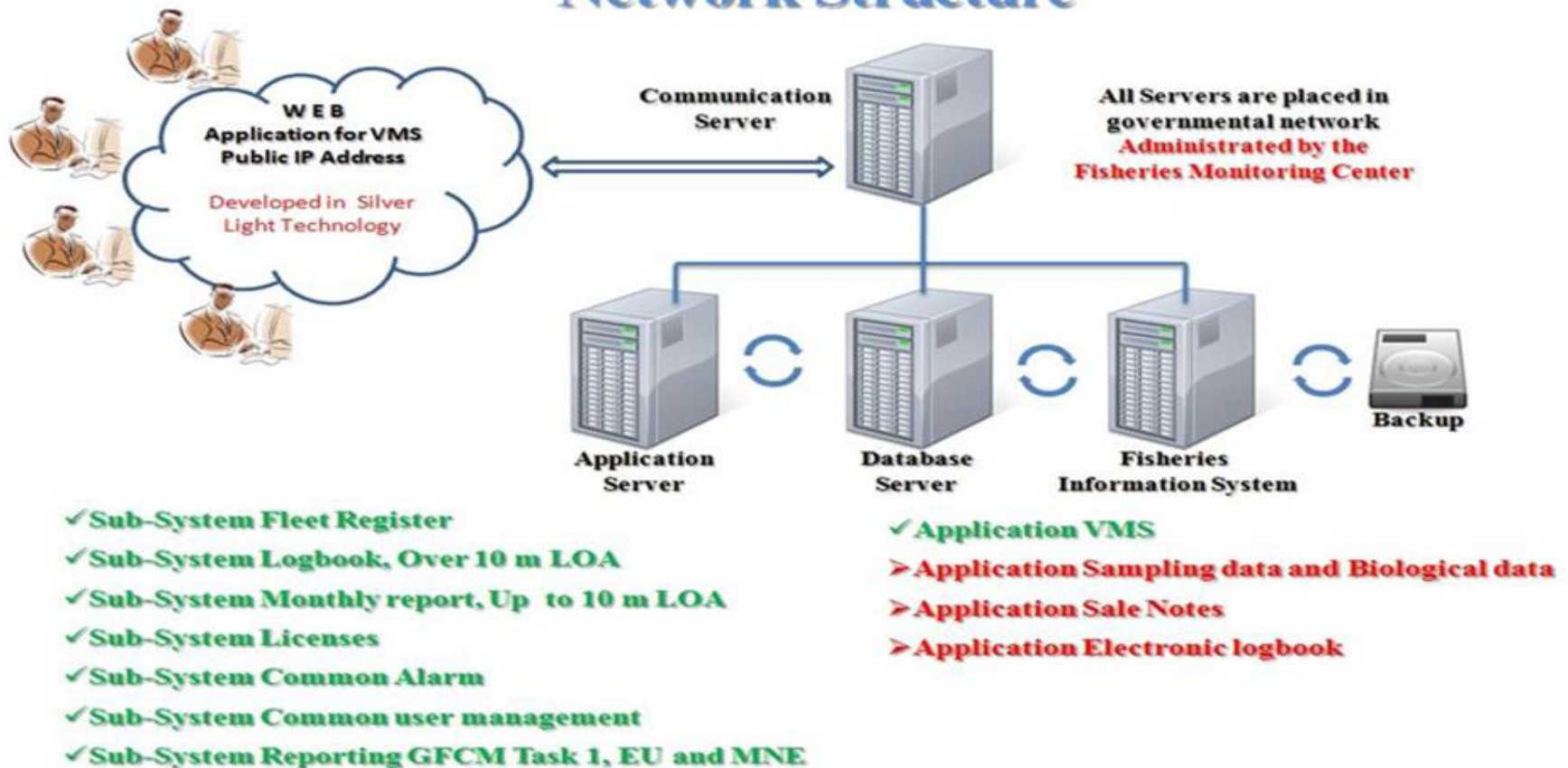


Vessel monitoring system

- IPA 2009 Project ” Sustainable development of marine fisheries
- Ministry of Agriculture and Rural Development – Fishery unit
- Law on marine fisheries and mariculture (OG 56/09)
- Bylaw - The type of satellite monitoring system of fishing vessels and type of fishing vessels for which system is established.
- Fisheries Information system - FIS

Fisheries Information System

Network Structure





Korisnici u sistemu RIS-a

Korisnički podaci
Korisnik: Deniz Frljuckic
Korisničko ime: Deniz_RMC
Lozinka: ●●●●●●
Potvrda lozinke:

Uloga i prava u sistemu
Administrator sistema

Korisnici sistema

Uloge korisničkih prava u sistemu RIS-a:

- Korisnik VMS
- Operater - unos podataka o ulovu
- Operater - unos podataka o dozvoloma
- Operater - unos podataka o plovilima
- Administrator sistema**
- Default uloga u sistemu

Izmjena dozvole
 Ponistenje dozvole
 Brisanje dozvole
 Stampa i produzenje dozvola
 Dnevnik ulova

- Primopredaja dnevnika
 - Registracija dnevnika
 - Pregled i izmjena dnevnika
- Evidencija ulova
 - Dnevnik ulova za velika plovila
 - Dnevnik ulova za mala plovila

 Izvjestaji

- GFCM Task1 izvještaj
- Izvještaj2

 Sifarnici

- Gradovi i luke
- Vlasnici i agenti

 Alarm sistem

- Pregled alarma
- Podesavanja alarma

 Administracija

- Korisnici

ID	Korisnik	Korisnicko ime
1	Andrija Jovanovic	andrija
2	Denis Frljuckic	denizf
3	Deniz Frljuckic	Deniz_RMC
4	Srdjan Mugosa	Srdjan
5	Ana Pesic	Ana_IBM
6	Miomir Tapuskovic	Insp_Miomir
7	Nada Lakicevic	Nada
8	Milena Krasic	Milena
9	Ljiljana Bubonja	Insp_Ljilja
10	Radovan Bjelanovic	Insp_Radovan



VMS TRANSPONDERS

Characteristics of transponders used by Montenegrin fishing vessels:

- lower operating costs and high frequency of position reports at the same time;
- seamless automatic switching from GPRS to SAT channel and viceversa;
- low installation cost and improved safety and security through one-cable installation, connecting the device to the power source;
- no need for any on-site intervention using over the air firmware upgrading;
- reliable and cost-efficient operation through a robust and maintenance-free device;
- enables integration with the existing FMC infrastructure regardless of the communication channel;
- operates for up to 3 full days on battery in the event of a power failure;
- simple mounting with a RailMount or UniMount mounting kit;
- fully compliant with Council Regulation (EC) Nos.2371/2002 and 1224/2009.

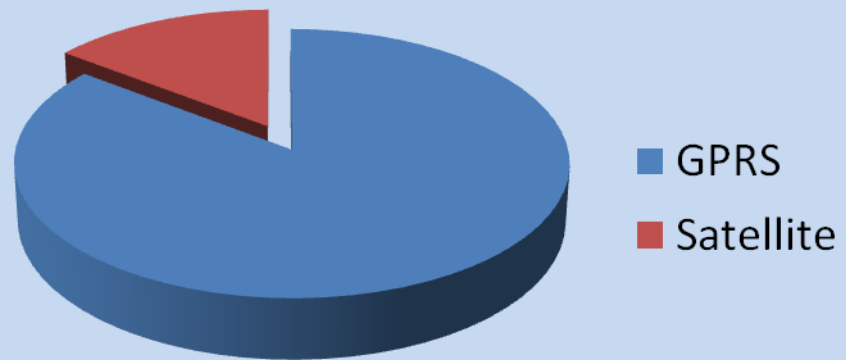


COMMUNICATIONS

Frequency

GPRS: One message every 15 minutes.

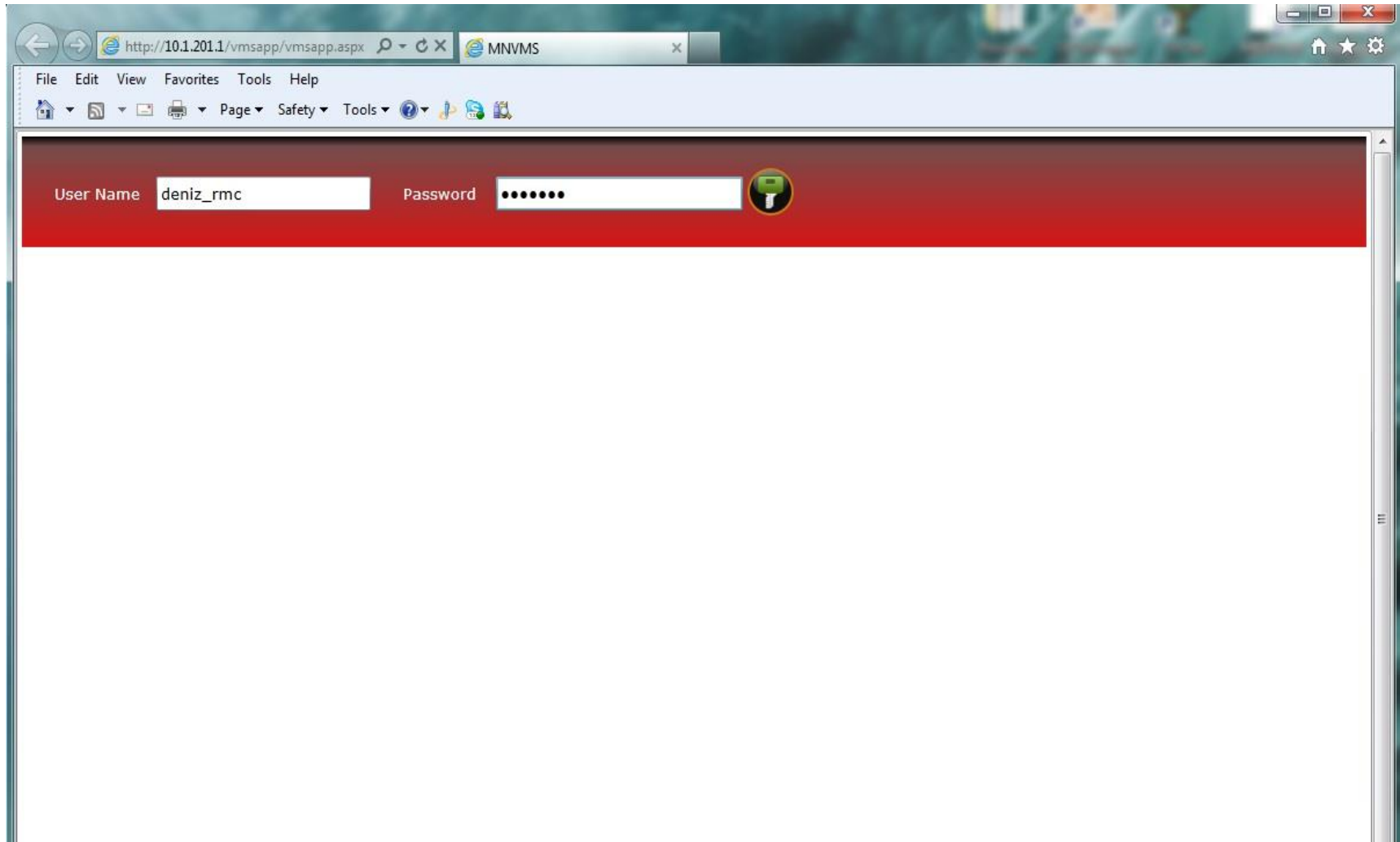
Satellite: One message every 2 Hours



**85% of transmissions
were made using GPRS**



VMS





deniz_rmc Is Logged



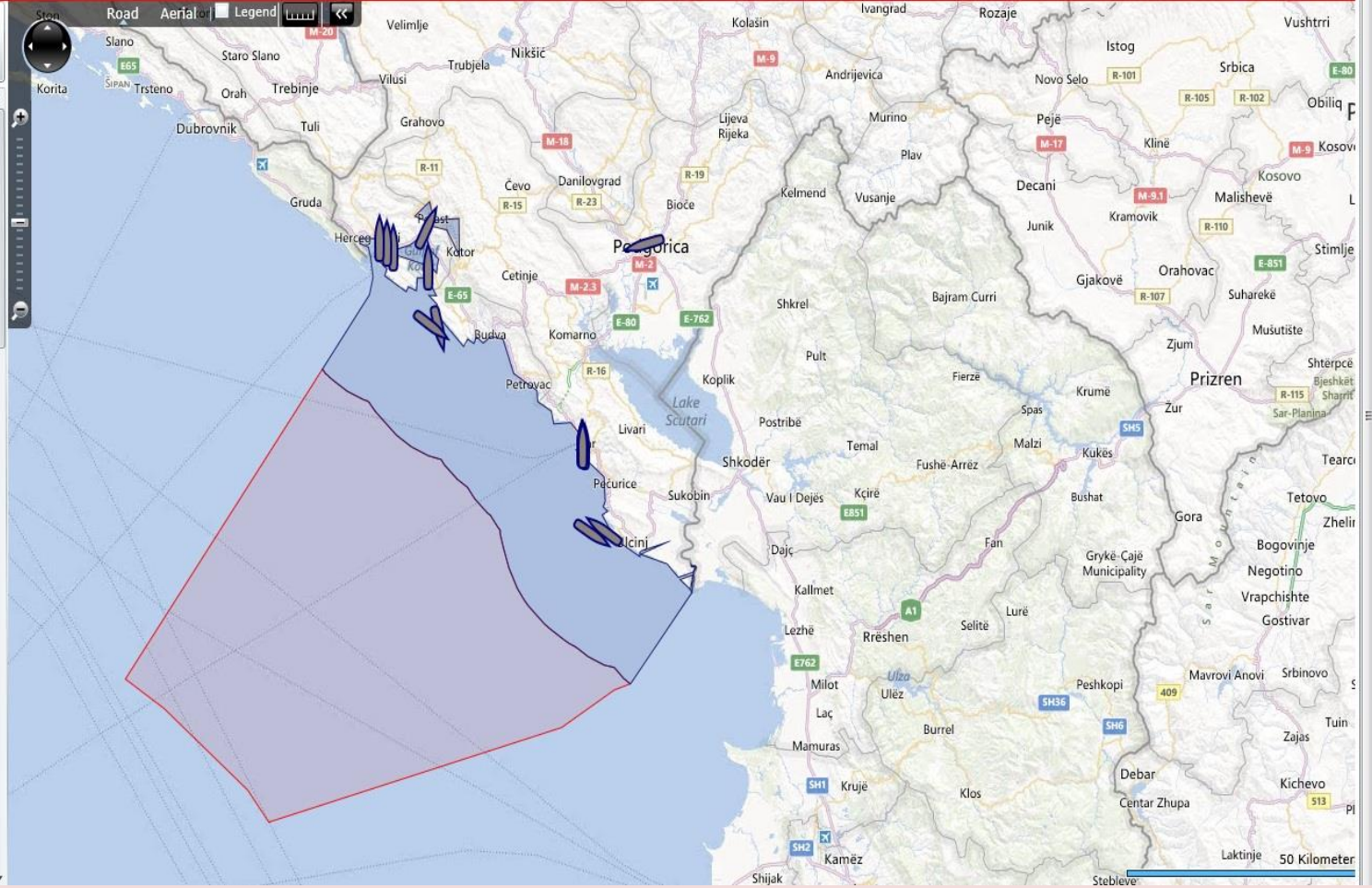
15-02-2013 14:19



20° 58'34"E 41° 39'39"N

SEARCH [input field]

- Pinješ**
MNE002000008
47-ZL
- LB ARCA**
MNE001000013
ARCA
- Jovana**
MNE003000048
67-KT
- Sveti Marko**
MNE005000050
38-TV
- Triomare**
MNE001000061
Triomare
- Ciklone I**
MNE001000063
Ciklone I
- Jadranka**
MNE001000064





Default items

Vessel List.

Current position of vessels

Information about position , speed and course

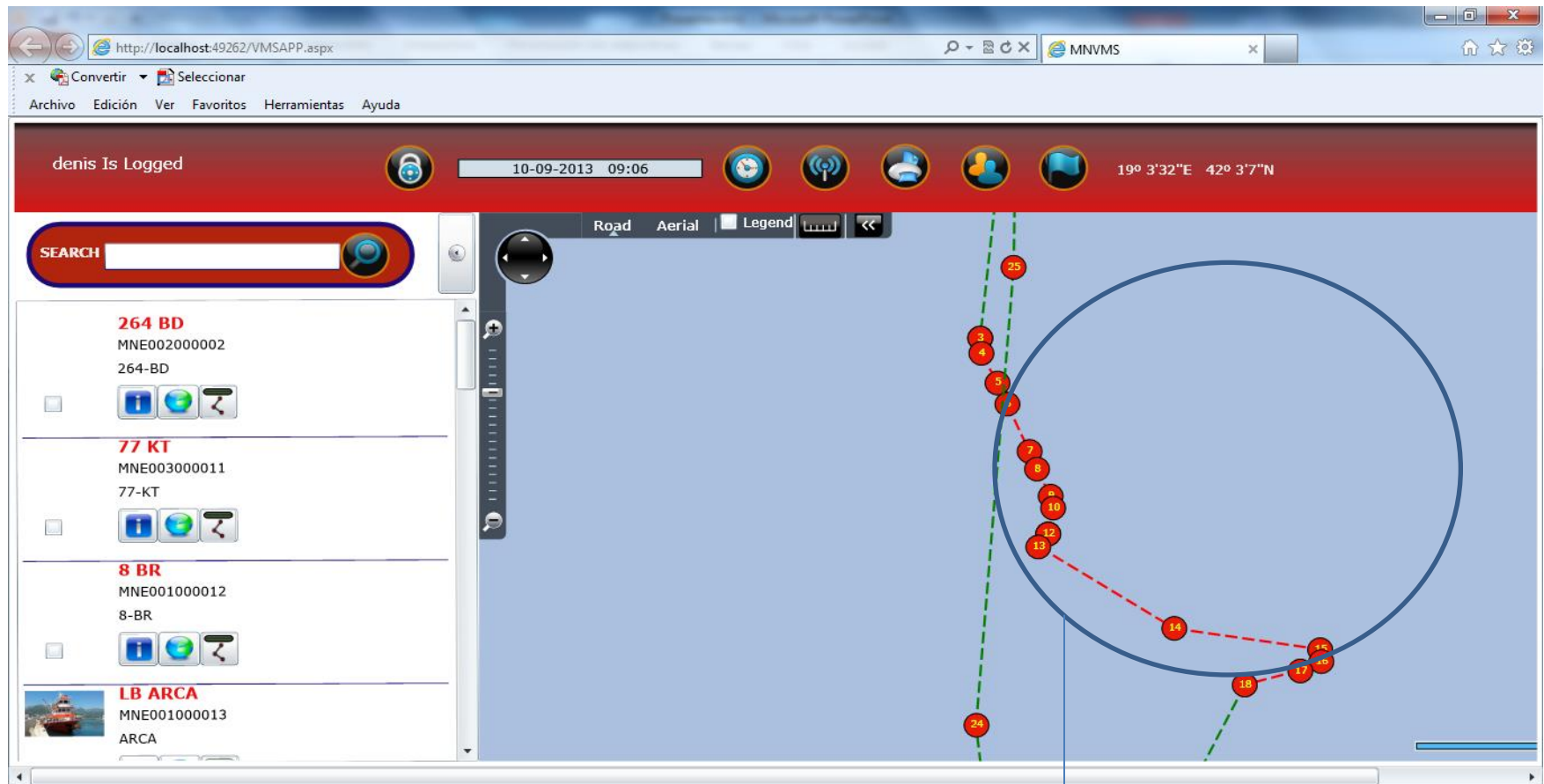


Vessel Tracking

Tracking can be performed selecting 2 dates, number of tracking points or a single fishing trip



Fishing events



Fishing events are detected by vessel speed.
Less than 2 knots is considered a fishing event

Fishing events are identified as a red line



Tracking sections

The screenshot shows a web-based VMS tracking application. The browser address bar displays `http://localhost:49262/VMSAPP.aspx`. The user is logged in as 'denis'. The interface includes a search bar, a sidebar with vessel details, and a main map area. The sidebar lists four vessels:

- 264 BD** (MNE002000002)
- 77 KT** (MNE003000011)
- 8 BR** (MNE001000012)
- LB ARCA** (MNE001000013)

The map shows a tracking path with red circular markers numbered 3 through 25. A tooltip is displayed over the path between points 8 and 10, providing the following information:

- Distance: 0.50 NM
- Average Speed: 1.95 KTS
- Time: 0.25 Hours
- Event: Fishing

Information between two tracking points



Vessel information

The screenshot displays a web browser window with the URL `http://localhost:49262/VMSAPP.aspx`. The application interface includes a search bar and a list of vessels. The vessel **LB ARCA** (MNE001000013) is selected, and its details are shown in a pop-up window titled **VesselInfo**.

VesselInfo window details:

- Vessel** / Licence tabs
- LB ARCA** (Vessel Identification)
- External Mark:** ARCA
- CFR:** MNE001000013
- IRCS:**
- HOME PORT:** Bar
- Vessel Dimensions:**
 - LOA: 21.57
 - LBP: 0
 - GT: 75
 - BREADTH: 7.3
 - DEPTH: 2
 - GRT: 0
 - DRAFT: 1.5
 - NRT: 0
 - FREEBOARD: 0
 - GTS: 0
 - FREEBOARD: GT
 - MAIN POWER: 582
 - AUX POWER: 0
- Vessel Equipment:**
 - VHF Radio station:
 - UHF Radio station:
 - Radio Navigation:
 - Radar:
 - Satellite System:
 - Monitoring System:
- Vessel Segments:**
 - MNE segment: Plovila na otvorenom moru

An **OK** button is located at the bottom of the pop-up window.

VMS application is fully integrated with Vessel Registration System. All information collected by Vessel registration system can be queried in VMS application.



Vessel licence

The screenshot shows a web browser window with the URL `http://localhost:49262/VMSAPP.aspx`. The browser tab is labeled 'MNVMS'. The page content includes a search bar and a list of vessels. A 'VesselInfo' dialog box is open, displaying the following information:

Ministry of Agriculture and Rural Development

Licence number: **MNE00000000**

Licence holder: **Andrija Jovanovic**

Address: **Podgorica**

Vessel Owner: **Andrija Jovanovic**

Agent: **Andrija jovanovic**

Address: **Podgorica**

Issue date: **01/01/2010** Expiration date: **01/01/2010**

The background of the application shows a search bar with the text 'denis Is Logged' and a list of vessels with their respective IDs and MNE numbers:

- 264 BD, MNE002000002, 264-BD
- 77 KT, MNE003000011, 77-KT
- 8 BR, MNE001000012, 8-BR
- LB ARCA, MNE001000013, ARCA

Licence data is shown in VMS program



Port Scope

The screenshot displays a web application interface for port management. The interface is divided into several sections:

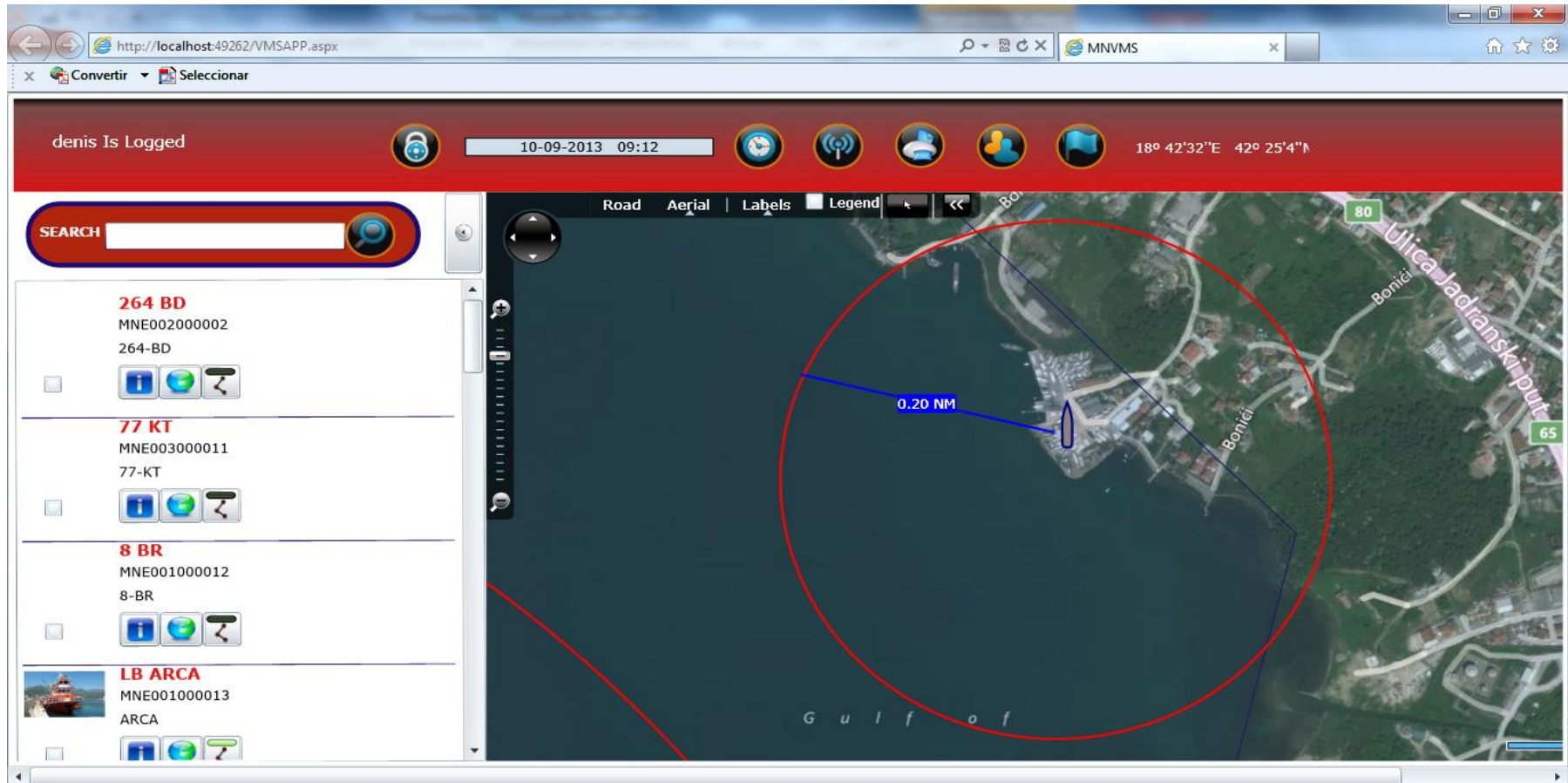
- Header:** Shows the user is logged in as 'denis', the date and time '10-09-2013 09:11', and coordinates '18° 42'38"E 42° 25'5"N'. There are also several navigation icons.
- Search Bar:** A search bar with the text 'SEARCH' and a magnifying glass icon.
- Port List:** A list of port entries, each with a checkbox, a name, a code, and a small image icon.

Port Name	Code	Image
264 BD	MNE002000002	
77 KT	MNE003000011	
8 BR	MNE001000012	
LB ARCA	MNE001000013	
- Map:** A satellite map showing a coastal area. A red circle highlights a specific port area. The map is labeled 'Gulf of' and 'Bonici'. There are also labels for 'Ulica Jadranska' and '80'.

Port scopes can be defined in the program. This areas are important for fishing trip calculation.



Distance calculator



By clicking the initial and final points the distance is calculated in miles



Thank you for your attention!