

BULGARIAN FISHING FLLET
NAFA

COMMUNICATION TOOLS
INFORMATION TECHNOLOGIES

Bulgarian National Agency of Fisheries
and Aquacultures

BULGARIAN FISHING FLEET

- Number of fishing vessels in the registry

- Segment distribution

Segments	Number of fishing vessels			
	31.12.2008	31.12.2009	31.12.2010	31.12.2011 activ vessels
To 6 meters	846	708	762	341
from 6 to 11.99 m	1 593	1 392	1 471	585
from 12 to 17.99 m	68	65	67	60
from 18 to 23.99 m	29	28	27	12
over 24 m	12	13	13	12
total	2 548	2 206	2 340	1010

STOCKS SUBJECT OF ASSETS OF FISHING VESSELS FLYING THE FLAG OF BULGARIA

- Demersal – Turbot, flounder, whiting, thornback ray etc.
- Pelagic- sprat, anchovy, horse mackerel, bonito, bluefish etc.
- **CURRENTLY TWO STOCKS ARE SUBJECT** of fixing the fishing opportunities (turbot and sprat) in Black Sea community waters.

Used fishing gears

- Demersal fishing gears (gill nets.....)
- Pelagic fishing gears - GNS, OTM, FPO
- prohibition for demersal trawling-
Introduced by the Law on Fisheries and Aquaculture in 2002 to protect the demersal communities in the Black Sea, which is unique in nature because is closed sea

Control of fishing activities

- Control measures
 - EU legislation: REG. control
 - introduced VMS
 - **Information Statistical system (ISS)**

INFORMATION SYSTEMS

- ✓ **NAFA - Bulgaria developed and implemented two information systems and operative levels – Information Statistical system (ISS) and Vessels Monitoring system (VMS).**
- ✓ **The implementation of these Information systems is in conformity with the EU Regulations and recommendations.**

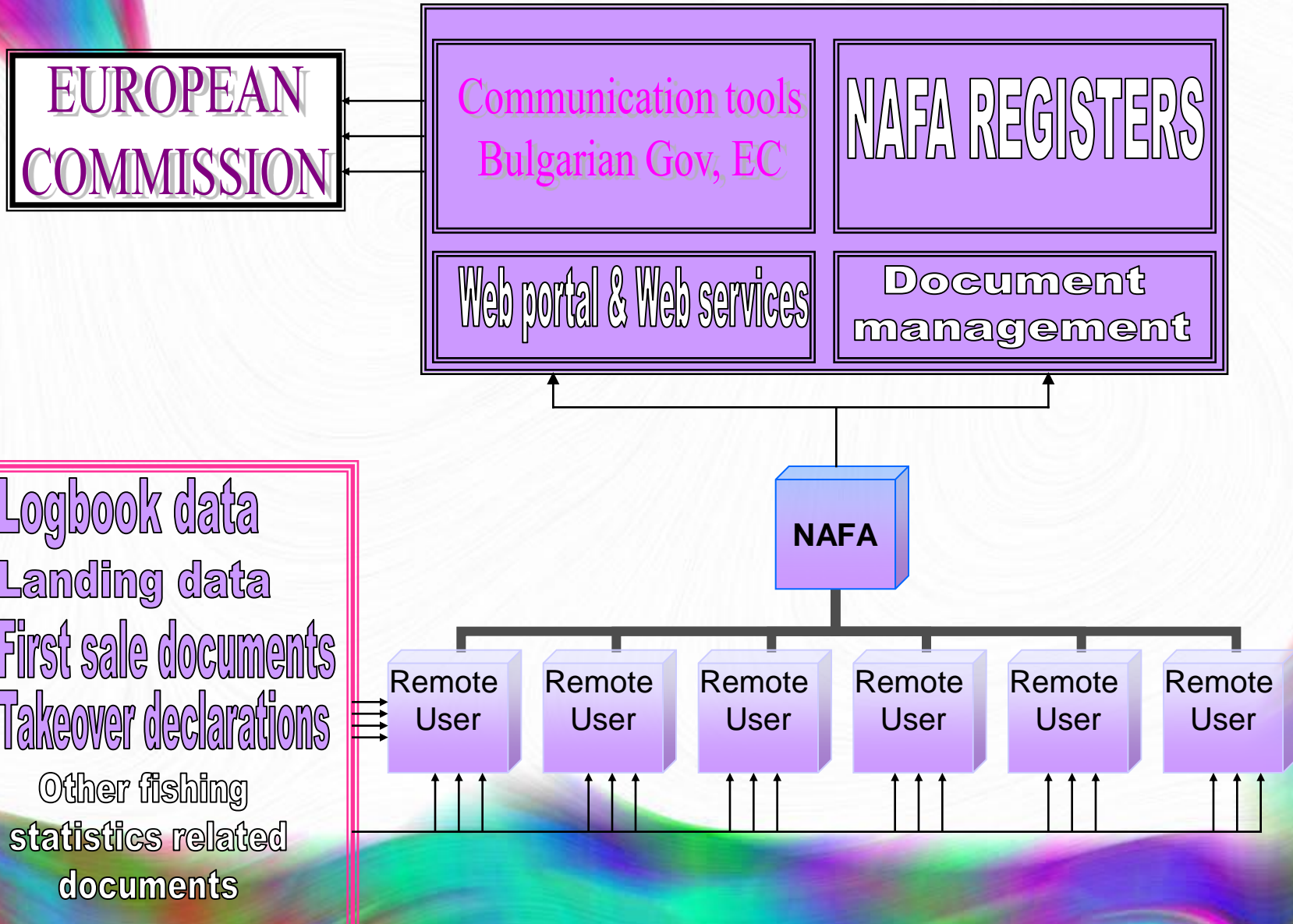
✓ **General features:**

- ✓ **Produces authoritative fishing statistics reports in conformity with the EU legislation requirements related to data format.**
- ✓ **Thorough analysis of the results, determining adequate management decisions.**
- ✓ **Basic advantage of the adopted systems is their contribution to the enhancement of NAFA's control techniques efficiency**
- ✓ **Effectiveness and high speed data processing.**

Information statistical system of NAFA



DATA FLOW SCHEME



General features and aims

- **To carry out processes of centralized collection of fishing statistics data, processing, validation and storage**
- **To receive, store and exchange data with other systems – VMS, Other Information systems**
- **To analyze the data and to facilitate revealing non-conformity of data**
- **To summarize data and automatically supply it to EC**
- **To render various e-services to public - part of e-government**

Structure, Information Modules

- ❖ **The information system is web server based system, working in real time and the data stored is renewed up to date by the authorized operators. The access to the system is secured by individual password assigned to the relevant authorized operator.**
- ❖ **The system is a combination of information modules related to the different directions in the fishing statistics. The data collected could be transferred from one information module to another automatically or depending on the user's classification criteria.**

- My Documents
- My Computer
- My Network Places
- Recycle Bin
- Internet Explorer
- Acstre Systems
- kor
- korabi

Password menu
 The system requires:
 Username
 PASSWORD

Достъп до ИАРА ИС 2006

Парола

Име: ИБикарска

Парола: xxxxx

ОК
 Отказ

NAFA ISS Registers menu

ИАРА ИнфСис --- УПРАВЛЕНИЕ НА ПРИЛОЖЕНИЯ

Акстър ОФИС	Улови и продажби	Стопански риболов	Регистрирани купувачи и ...	Риболовни кораби
Смяна на парола	Регистър на рибовъдни...	Браншови организаци...	Научен риболов	Системен инструмент
Кръстосани проверки	Отчетни форми	Каса	Акстър ОФИС д...	ИС Ръководства
Каса документи				

Structure, Information Modules

- **Fishing fleet register:** the data collected includes registration number, name of the vessel, technical parameters, producer information, personal details of the vessel's owner;
- **Commercial Fishing licenses register** – the information collected in this information module is for the fishing licenses issued by the agency: the number of the license, the type of the fishing gears, the number of the logbooks etc.. This module corresponds with the fleet register automatically
- **Recreational fishing register**
- **Catch register:** contains information like: landing declarations, take over declarations, transport documents – corresponds with Commercial Fishing licenses register.
- **Branch organizations register.** Contains: list of main data of branch organizations and operational program list of projects
- **Register of Producer Organizations.** Contains: Registration of Producer organizations. Production and processing data. Operational program list of projects.

Subsystem analyses and reports

- Quota expiry reports
- Scientific data – available resources and catches effected
- Fishing effort
- Catches effected (different species)
- Fishing fleet capacity
- Warning for delayed submission of landing declarations and sales notes

VESSEL MONITORING SYSTEM

- ☒ Visualization of the vessel's movement**
- ☒ Large scale vector electronic map in WGS 84 coordinate system**
- ☒ Options for monitoring of predefined number of objects**
- ☒ The data stored in the system (current coordinates, date, time...) could be checked and analyzed easily for programmable period of time.**

FVMS - NAFA

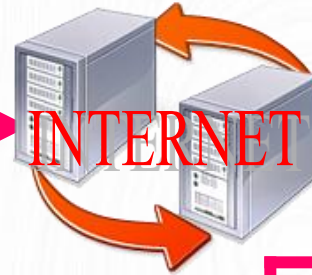
Surveillance and control Department



Inmarsat Satellite



Inmarsat Land Earth Station (LES)



INTERNET

FMC



Fishing Vessel



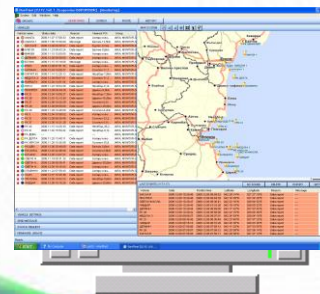
On-board equipment:



Message Terminal



Mini-C



Fleet Tracking, Management and Communication Software

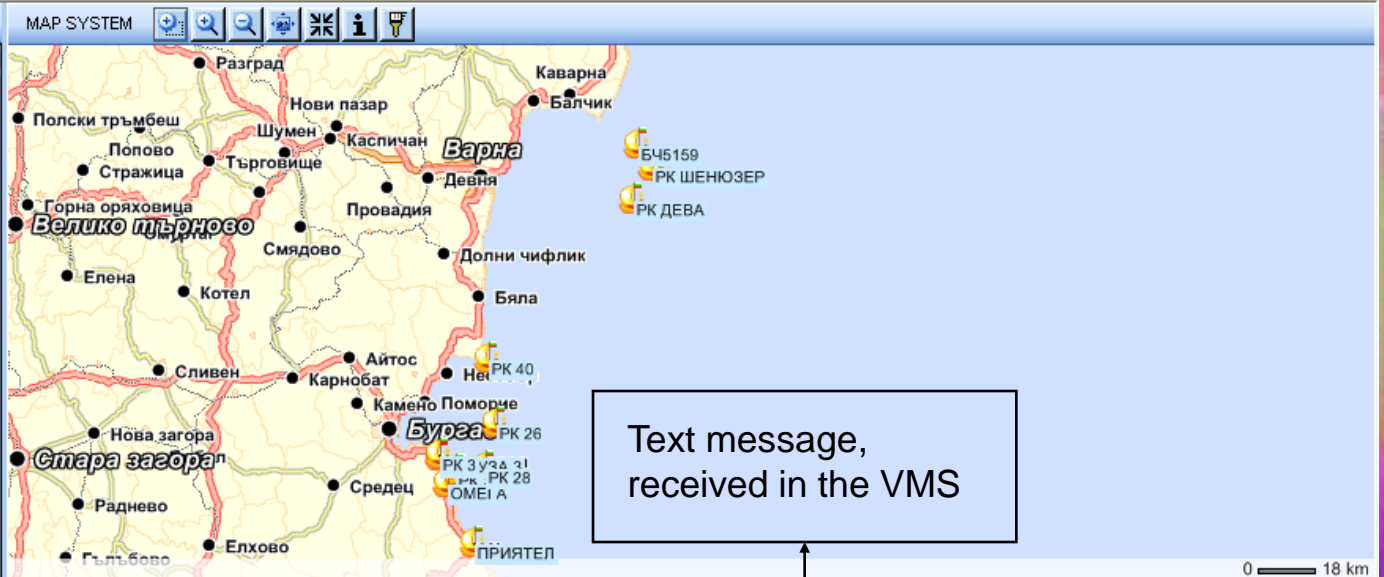


Message format

- The messages transmitted through the onboard equipment, installed on the board of the fishing vessels contain the following information:
- Name of the vessel \ external mark
- Date and time of transmission
- Position time
- Reason for transmission (data report, message)
- Current coordinates
- Speed
- Course
- Distance from homeport
- Message number
- In case of text message transmission the message is displayed along with positions registration data

VEHICLES

Vehicle name	Status	date	Reason
РУСАЛКА	2008.04.29 13:58:00	Message	
РК ШЕН...	2008.04.06 15:29:19	DATA_REPOF	
ПРИЯТЕЛ	2008.04.06 15:26:20	DATA_REPOF	
РК 26	2008.04.06 15:26:00	Message	
РК ДЕВА	2008.04.06 15:18:23	DATA_REPOF	
РК 28	2008.04.06 15:16:22	DATA_REPOF	
РК 3	2008.04.06 15:08:00	Message	
ОМЕГА	2008.04.06 15:03:59	DATA_REPOF	
Б45159	2008.04.06 15:02:50	DATA_REPOF	
РК 40	2008.04.06 15:01:49	DATA_REPOF	
МЕДУЗА 3	2008.04.06 14:59:14	DATA_REPOF	
РК ДЕЛТА	2008.04.06 14:47:16	DATA_REPOF	
РК 27	2008.04.06 12:25:35	DATA_REPOF	
АФАЛА 1	2008.04.05 22:51:59	DATA_REPOF	
АФАЛА	2008.04.05 22:30:00	Message	
ТАИС	2008.04.05 19:31:32	DATA_REPOF	
СВЕТИ Н...	2008.04.05 18:47:28	DATA_REPOF	
ЧАВДАР	2008.04.05 15:57:50	DATA_REPOF	
КИРИЛ 45	2008.04.05 09:32:00	Message	
НИКО	2008.04.05 08:43:49	DATA_REPOF	
ОДЕСОС	2008.04.04 19:24:45	DATA_REPOF	
РК 41	2008.04.03 15:01:32	DATA_REPOF	
КОРСАР	2008.04.03 10:54:17	DATA_REPOF	
РУСАНО	2008.04.03 10:18:00	Message	
СВЕТИ И...	2008.03.31 13:57:36	DATA_REPOF	
НС 401	2008.03.29 13:10:59	DATA_REPOF	
ВЪЛНОБ...	2008.03.29 11:54:49	DATA_REPOF	
НИК АК...	2008.03.26 18:14:00	Message	
ТРИГОНА	2008.03.24 14:11:32	DATA_REPOF	
РК 31	2008.03.23 17:56:45	DATA_REPOF	
БИСКАЯ	2008.02.25 16:33:57	DATA_REPOF	
РК 37	2008.02.25 16:32:00	Message	
ЛАВРАК	2008.02.25 11:49:07	DATA_REPOF	
РК 29	2008.02.23 16:35:49	DATA_REPOF	
ФНИКС	2008.02.22 13:50:00	Message	



LAST EVENTS (266:266)

Vehicle	Date	Position time	Reason	Longitude	Latitude	S...	C...	Message	Message...	Nearest POI
РК ШЕНЮЗЕР	2008.04.06 15:27:07	2008.04.06 15:29:19	DATA_REPOF	028 43' 40"E	043 13' 50"N	004	274	---	1624114	Балчик-50,3km
РК 26	2008.04.06 15:26:44	2008.04.06 15:26:00	Message	027 58' 12"E	042 30' 45"N	---	---	Switch off	1624113	Созопол-24,9km
ПРИЯТЕЛ	2008.04.06 15:24:19	2008.04.06 15:26:20	DATA_REPOF	027 51' 55"E	042 10' 47"N	012	184	---	1624112	Царево-0,9km
РК ДЕВА	2008.04.06 15:16:11	2008.04.06 15:18:23	DATA_REPOF	028 38' 12"E	043 08' 19"N	003	046	---	1624111	Балчик-49,0km
РК 28	2008.04.06 15:14:08	2008.04.06 15:16:22	DATA_REPOF	027 54' 45"E	042 23' 26"N	014	280	---	1624110	Созопол-18,5km
РК 3	2008.04.06 15:08:54	2008.04.06 15:08:00	Message	027 41' 24"E	042 25' 26"N	---	---	Switch off	1624109	Созопол-0,2km [Co..
ОМЕГА	2008.04.06 15:01:44	2008.04.06 15:03:59	DATA_REPOF	027 43' 50"E	042 20' 52"N	000	126	---	1624108	Созопол-9,1km
Б45159	2008.04.06 15:00:38	2008.04.06 15:02:50	DATA_REPOF	028 39' 43"E	043 17' 23"N	003	230	---	1624107	Балчик-43,0km
РК 40	2008.04.06 14:59:38	2008.04.06 15:01:49	DATA_REPOF	027 55' 57"E	042 41' 31"N	016	240	---	1624106	Несебър-17,0km
МЕДУЗА 3	2008.04.06 14:57:01	2008.04.06 14:59:14	DATA_REPOF	027 41' 28"E	042 25' 19"N	000	030	---	1624105	Созопол-0,2km
РК 3	2008.04.06 14:51:30	2008.04.06 14:53:45	DATA_REPOF	027 41' 26"E	042 25' 47"N	011	242	---	1624104	Созопол-0,7km
РК 28	2008.04.06 14:48:40	2008.04.06 14:48:00	Message	027 57' 24"E	042 22' 35"N	---	---	End to	1624103	Созопол-22,4km
РК ДЕВА	2008.04.06 14:46:14	2008.04.06 14:48:26	DATA_REPOF	028 37' 38"E	043 07' 50"N	003	070	---	1624102	Балчик-49,0km
РК ДЕЛТА	2008.04.06 14:45:04	2008.04.06 14:47:16	DATA_REPOF	028 46' 24"E	043 13' 24"N	004	240	---	1624101	Балчик-54,0km
РК 26	2008.04.06 14:41:01	2008.04.06 14:43:14	DATA_REPOF	027 58' 57"E	042 28' 40"N	005	010	---	1624100	Созопол-24,6km
МЕДУЗА 3	2008.04.06 14:30:53	2008.04.06 14:30:00	Message	027 41' 28"E	042 25' 19"N	---	---	Switch on	1624099	Созопол-0,2km
РК ШЕНЮЗЕР	2008.04.06 14:27:03	2008.04.06 14:29:16	DATA_REPOF	028 46' 48"E	043 13' 33"N	004	250	---	1624098	Балчик-54,4km
ПРИЯТЕЛ	2008.04.06 14:24:35	2008.04.06 14:26:49	DATA_REPOF	027 51' 26"E	042 15' 00"N	005	046	---	1624097	Царево-8,7km
РК 3	2008.04.06 14:21:27	2008.04.06 14:23:39	DATA_REPOF	027 44' 02"E	042 23' 55"N	011	002	---	1624096	Созопол-4,5km
РК ДЕВА	2008.04.06 14:16:09	2008.04.06 14:18:20	DATA_REPOF	028 37' 24"E	043 07' 16"N	004	330	---	1624095	Балчик-49,4km

Communication between the FMC and the Master of the fishing vessel

- ☒ The system disposes with module designed for communication between the FMC and the Master of the fishing vessel. This is accomplished by the transfer of text messages – could be free style.
- ☒ Request for current position – suspecting IUU fishing activity the operator from the VMS center could generate request for reporting the current position, which will be responded automatically by the vessel's equipment – prevents data corruption by third parties
- ☒ Polling option – in case of infringement the vessels activity can be controlled more strictly. The frequency of transmission can be increased remotely.

VEHICLES

icle name	Status date	Reason
РУСАЛКА	2008.04.29 13:58:00	Message
PK ДЕВА	2008.04.06 16:46:39	DATA_REPOF
PK ДЕЛТА	2008.04.06 16:44:29	DATA_REPOF
PK 26	2008.04.06 16:43:29	DATA_REPOF
PK ШЕН...	2008.04.06 16:28:01	DATA_REPOF
PK 28	2008.04.06 16:18:08	DATA_REPOF
ОМЕГА	2008.04.06 16:03:36	DATA_REPOF
БЧ5159	2008.04.06 16:03:20	DATA_REPOF
PK 40	2008.04.06 16:02:52	DATA_REPOF
ПРИЯТЕЛ	2008.04.06 15:26:20	DATA_REPOF
PK 3	2008.04.06 15:08:00	Message
МЕДУЗА 3	2008.04.06 14:59:14	DATA_REPOF
PK 27	2008.04.06 12:25:35	DATA_REPOF
АФАЛА 1	2008.04.05 22:51:59	DATA_REPOF
АФАЛА	2008.04.05 22:30:00	Message
ТАИС	2008.04.05 19:31:32	DATA_REPOF
СВЕТИ Н...	2008.04.05 18:47:28	DATA_REPOF
ЧАВДАР	2008.04.05 15:57:50	DATA_REPOF
КИРИЛ 45	2008.04.05 09:32:00	Message
НИКО	2008.04.05 08:43:49	DATA_REPOF
ОДЕД	2008.04.04 19:24:05	DATA_REPOF
PK 41	2008.04.03 15:01:32	DATA_REPOF
КОРДАР	2008.04.03 10:54:17	DATA_REPOF
РУСАЛКА	2008.04.03 10:16:00	Message
СВЕТИ И...	2008.03.31 13:57:36	DATA_REPOF
МС 404	2008.03.29 13:10:59	DATA_REPOF

MAP SYSTEM



LAST EVENTS (254:254) [NO SOUND] [DELETE] [EXPORT] [SETTINGS]

Vehicle	Date	Position time	Reason	Longitude	Latitude	S...	C...	Message	Message...	Nearest POI
PK ДЕВА	2008.04.06 16:44:26	2008.04.06 16:46:39	DATA_RE...	028 37' 12"E	043 08' 48"N	003	210	---	1624128	Балчик-47,4km
PK ДЕЛТА	2008.04.06 16:42:18	2008.04.06 16:44:29	DATA_RE...	028 40' 28"E	043 14' 38"N	004	320	---	1624127	Балчик-45,7km
PK 26	2008.04.06 16:41:14	2008.04.06 16:43:29	DATA_RE...	027 47' 02"E	042 28' 16"N	016	234	---	1624126	Созопол-9,2km
PK ШЕНЮЗЕР	2008.04.06 16:25:46	2008.04.06 16:28:01	DATA_RE...	028 40' 45"E	043 14' 48"N	004	288	---	1624125	Балчик-46,0km
PK 28	2008.04.06 16:15:56	2008.04.06 16:18:08	DATA_RE...	027 44' 31"E	042 25' 19"N	014	286	---	1624124	Созопол-4,1km
PK ДЕВА	2008.04.06 16:15:55	2008.04.06 16:18:08	DATA_RE...	028 38' 26"E	043 09' 07"N	003	116	---	1624123	Балчик-48,4km
ОМЕГА	2008.04.06 16:01:22	2008.04.06 16:03:36	DATA_RE...	027 43' 50"E	042 20' 52"N	000	310	---	1624122	Созопол-9,1km
PK 26	2008.04.06 16:01:12	2008.04.06 16:00:00	Message	027 54' 31"E	042 30' 02"N	---	---	Switch on	1624121	Созопол-19,7km
БЧ5159	2008.04.06 16:01:05	2008.04.06 16:03:20	DATA_RE...	028 37' 33"E	043 16' 21"N	003	232	---	1624120	Балчик-40,9km
PK 40	2008.04.06 16:00:39	2008.04.06 16:02:52	DATA_RE...	027 44' 28"E	042 38' 57"N	016	274	---	1624119	Несебър-1,1km
PK 26	2008.04.06 15:51:01	2008.04.06 15:48:00	Message	027 56' 28"E	042 30' 55"N	---	---	Switch off	1624118	Созопол-22,9km
PK 26	2008.04.06 15:48:29	2008.04.06 15:48:00	Message	027 56' 33"E	042 30' 57"N	---	---	Switch on	1624117	Созопол-23,0km
PK ДЕВА	2008.04.06 15:45:30	2008.04.06 15:47:45	DATA_RE...	028 38' 55"E	043 08' 43"N	003	026	---	1624116	Балчик-49,4km
PK ДЕЛТА	2008.04.06 15:42:41	2008.04.06 15:44:52	DATA_RE...	028 43' 19"E	043 13' 45"N	004	258	---	1624115	Балчик-49,9km
PK ШЕНЮЗЕР	2008.04.06 15:27:07	2008.04.06 15:29:19	DATA_RE...	028 43' 40"E	043 13' 50"N	004	274	---	1624114	Балчик-50,3km
PK 26	2008.04.06 15:26:44	2008.04.06 15:26:00	Message	027 58' 12"E	042 30' 45"N	---	---	Switch off	1624113	Созопол-24,9km
ПРИЯТЕЛ	2008.04.06 15:24:19	2008.04.06 15:26:20	DATA_RE...	027 51' 55"E	042 10' 47"N	012	184	---	1624112	Царево-0,9km
PK ДЕВА	2008.04.06 15:16:11	2008.04.06 15:18:23	DATA_RE...	028 38' 12"E	043 08' 19"N	003	046	---	1624111	Балчик-49,0km
PK 28	2008.04.06 15:14:08	2008.04.06 15:16:22	DATA_RE...	027 54' 45"E	042 23' 26"N	014	280	---	1624110	Созопол-18,5km
PK 3	2008.04.06 15:08:54	2008.04.06 15:08:00	Message	027 41' 24"E	042 25' 26"N	---	---	Switch off	1624109	Созопол-0,2km (Co

Request for current position

VEHICLE SETTINGS

SEND MESSAGE

STATUS REQUEST

Request type

- DNID position request
- Minimal position request
- Maximal position request
- Group position request
- Start timer
- Stop timer

Outbox

NaviFleet [\\212.50.31.155\supervisor\supervisor] - [Outbox]

System Edit Windows Help

GROUPS MONITORING **OUTBOX** ROUTE HISTORY DIAGNOSTIC

Message id	Vehicle	Request date	Status date	Action	State	Model	User	Client	Driver	Media	Operation
20702	PK 27	2006.12.14 08:57:...	2006.12.14 10:54:...	Poll	Sending failed	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	50
20744	ЕЛИС	2006.12.14 10:50:...	2006.12.14 10:51:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	50
20701	PK 26	2006.12.14 08:57:...	2006.12.14 10:54:...	Poll	Sending failed	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	50
20743	ДЕЛФИН	2006.12.14 10:50:...	2006.12.14 10:51:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	50
20747	ПРИЯТЕЛ	2006.12.14 10:51:...	2006.12.14 10:51:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	100
20746	НАРВАЛ 1	2006.12.14 10:50:...	2006.12.14 10:51:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	50
20749	PK 21	2006.12.14 10:51:...	2006.12.14 10:51:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	50
20781	ЧАВДАР	2006.12.14 10:58:...	2006.12.14 10:59:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	100
20782	PK 28	2006.12.14 10:58:...	2006.12.14 10:59:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	100
20783	PK 27	2006.12.14 10:58:...	2006.12.14 10:59:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	100
20785	ЕЛИС	2006.12.14 10:58:...	2006.12.14 11:00:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	100
20784	ПРИЯТЕЛ	2006.12.14 10:58:...	2006.12.14 10:59:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	100
20786	МЕДУЗА 3	2006.12.14 10:58:...	2006.12.14 11:00:...	Poll	Sending in progress	Inmarsat-minic	Supervisor	Supervisor	INMARSATC-INTE...	INTERNET	100
20795	PK 27	2006.12.14 11:45:...	2006.12.14 12:10:...	Poll	Sending in progress	Inmarsat-minic	Monitor-v	Monitor-v	INMARSATC-INTE...	INTERNET	100

Export View details Resend Cancel sending Hide Update

12:10:36

VMS Features and aims

- **The system provides an indication of the fishing activity and records the vessel's track pattern**
- **Option for detailed analysis of the vessel's fishing activity**
- **The catch could be checked and registered even in case that the vessel is not discharged at it's homeport**
- **Enhances the control efficiency over the Bulgarian part of the Black sea coast**

Scientific orientated data

Trawl surveys for assessment of the resources of commercially important species

- **One of NAFA's main activities is research of sustainable catch levels and determination of the national quotas of commercially important species.**

The agency is financially involved in trawl survey projects and in data processing. The FMC provides information stored in the FVMS to support the surveys' reports preparation.

- **Figure 1. Trace of the Fishing vessel "Elis" – trawl survey for turbot recourses**
- **Figure 2. Trace if the Fishing vessel "Prof. Vulkanov" – trawl survey for sprat recourses.**

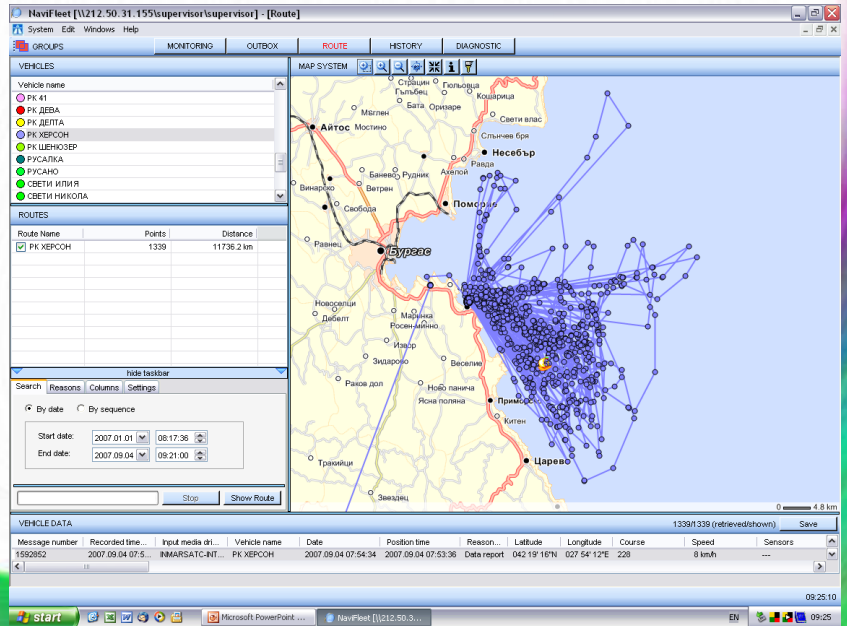
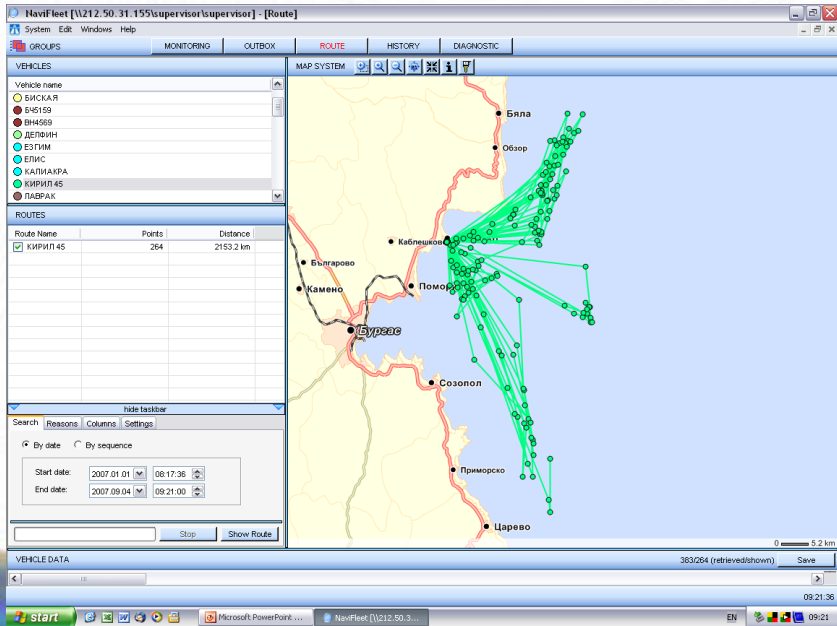
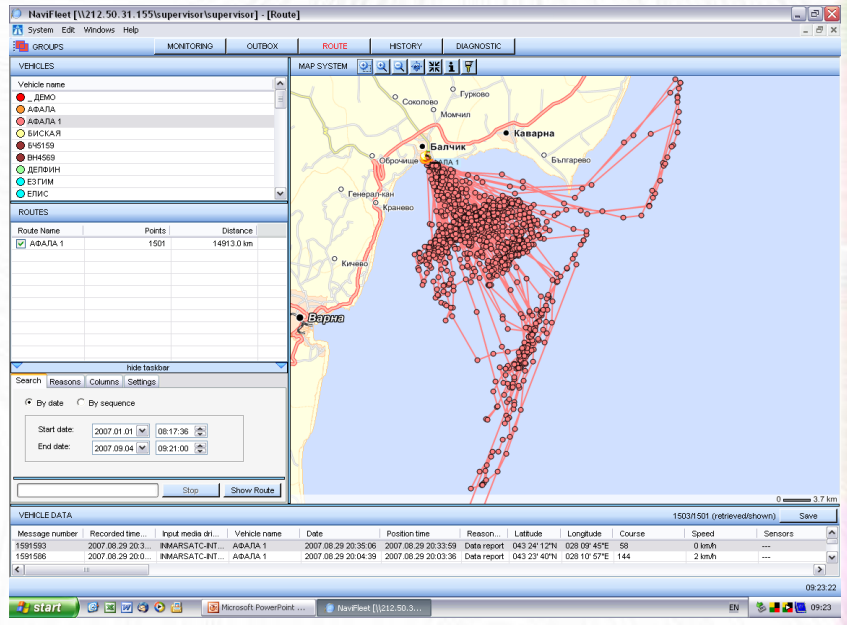
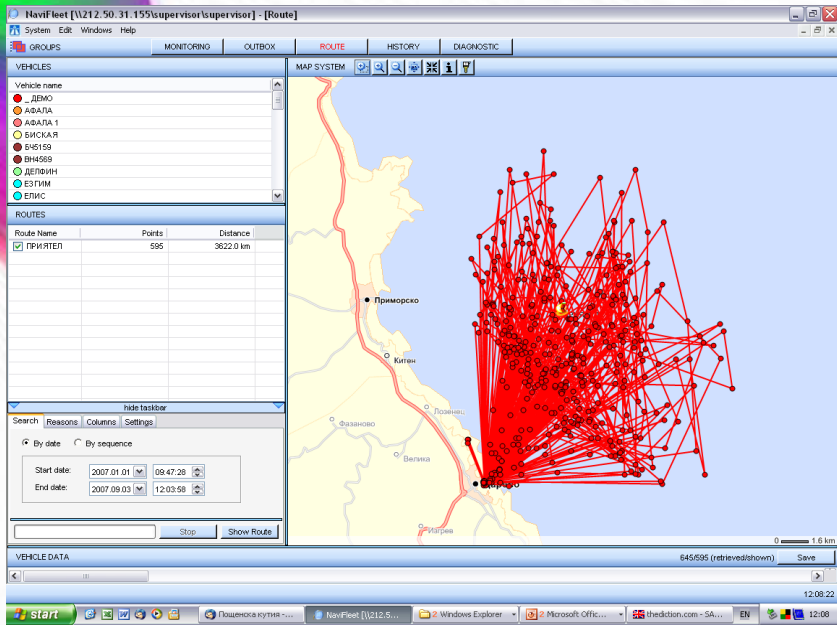


Figure 1

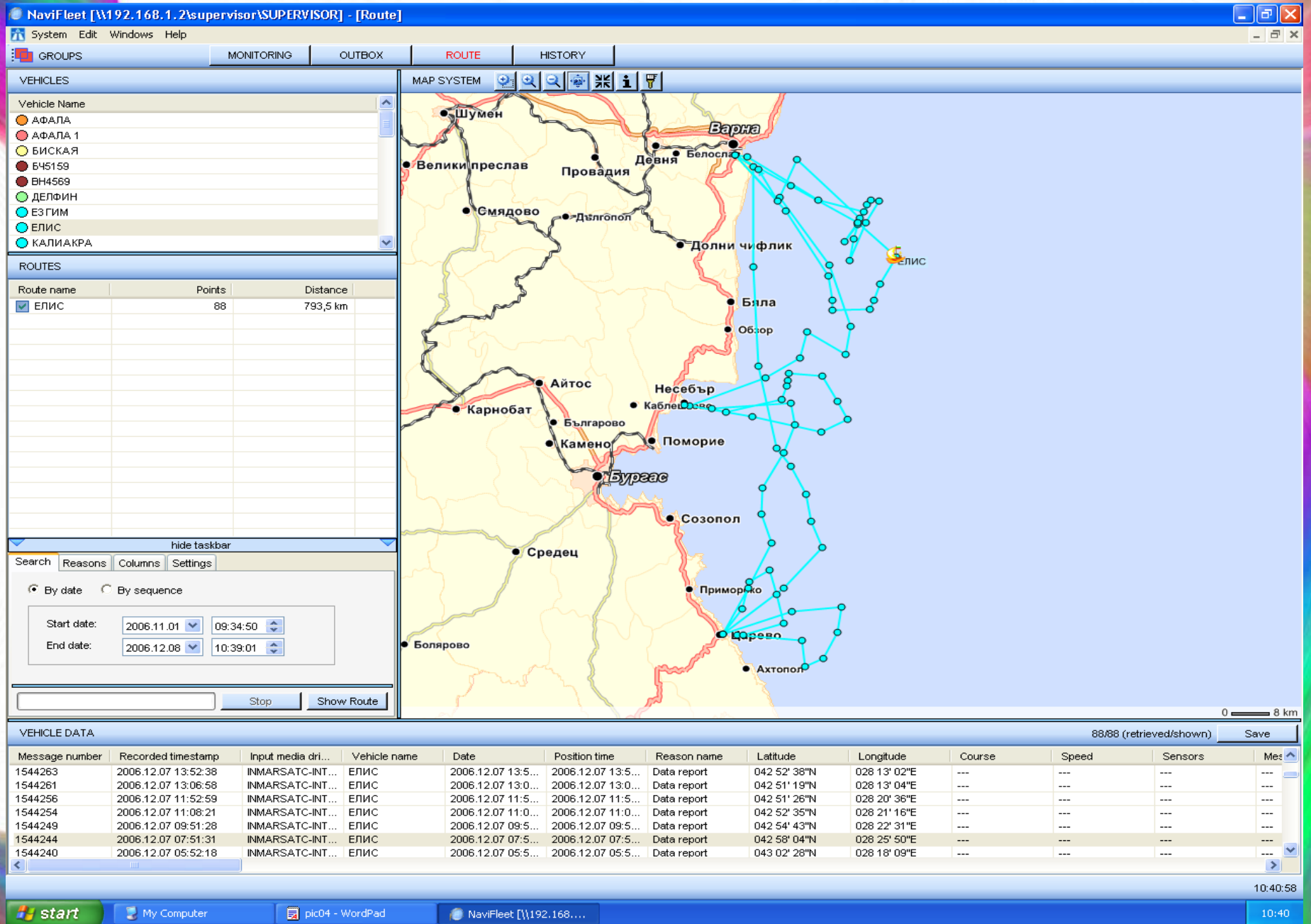
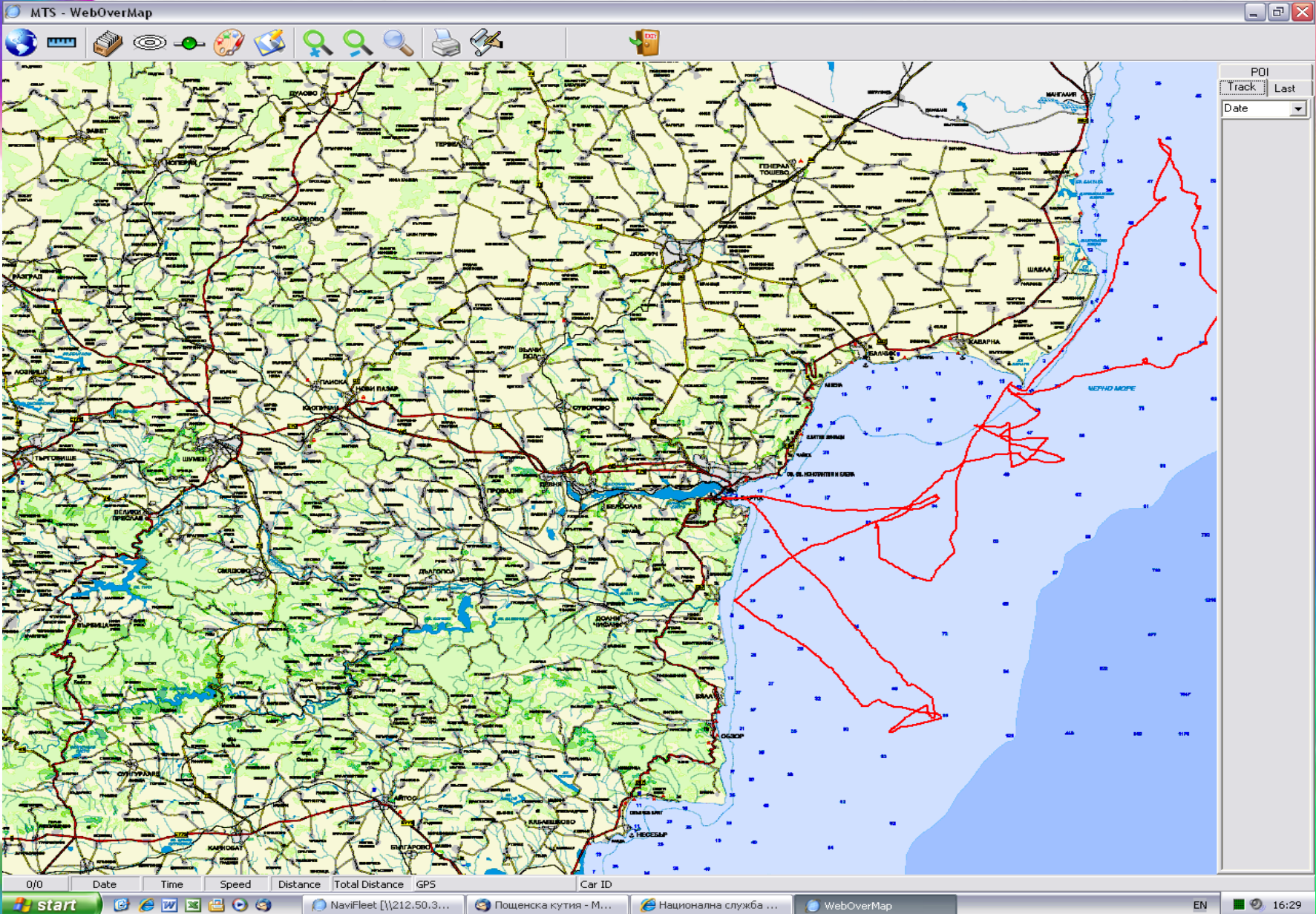


Figure 2



Fishing Vessels Database



A special database is created within the VMS to serve the operators and inspectors, allowing faster identification of the fishing vessel. In this database are stored such vessel's characteristics like:

- ✎ Name of the vessel
- ✎ Registration number
- ✎ Call sign (vessel's main identification elements)
- ✎ MMSI (vessel's main identification elements)
- ✎ Technical parameters like length, width ...
- ✎ Actual picture of the fishing vessel
- ✎ Contact details of the Master of the vessel
- ✎ Contact details of the vessel's owner

VEHICLES

Vehicle name	Status date	Reason	Nearest POI
МЕДУЗА 3	2007.02.01 06:34:05	DATA_REPORT	Созопол-0,2к...
ТАИС	2007.01.31 08:52:29	DATA_REPORT	Аспарухово...
РУСАНО	2007.01.30 14:52:00	Message	Аспарухово...
СВЕТИ Н...	2007.01.30 14:26:00	Message	Аспарухово...
PK 37	2007.01.30 13:48:07		
_ ДЕМО	2007.01.30 11:36:00		
PK 3	2007.01.29 17:25:33		
PK 28	2007.01.27 15:30:21		
РУСАЛКА	2007.01.27 14:50:19		
PK 27	2007.01.26 15:50:48		
ЧАВДАР	2007.01.26 15:48:04		
СВЕТИ Н...	2007.01.26 15:10:03		
PK 21	2007.01.23 14:38:57		
ПРИЯТЕЛ	2007.01.23 09:21:51		
ВН4569	2007.01.22 20:17:38		
КАЛИАК...	2007.01.21 14:41:49		
КИРИЛ 45	2007.01.20 11:52:03		
ЕЛИС	2007.01.16 19:29:15		
НИКО	2007.01.16 15:32:48		
СВЕТИ И...	2007.01.15 17:58:06		
БИСКАЯ	2007.01.15 13:36:01		
НАРВАЛ 1	2007.01.11 16:30:24		
АФАЛА 1	2007.01.11 16:16:00		
PK 26	2007.01.11 14:50:39		
PK ШЕН...	2007.01.11 10:29:15		
PK 31	2007.01.10 06:19:24		
ТРИГОНА	2007.01.09 15:30:47		
PK ДЕЛТА	2007.01.04 21:17:41		
ЕЗГИМ	2006.12.31 02:00:00		
PK 29	2006.12.27 10:33:34		
СЛАВИНО	2006.12.16 13:46:31		
ДЕЛФИН	2006.12.08 22:02:28	DATA_REPORT	Аспарухово...
PK ХЕРСОН	2006.11.28 15:35:58	DATA_REPORT	Созопол-25,9...
Б45159	2006.11.23 08:43:24	DATA_REPORT	Балчик-0,6km
PK 40	2006.11.15 14:20:30	DATA_REPORT	Несебър-26,2

MAP SYSTEM

Vehicle manager

Vehicles

- КАЛИАКРА
- КИРИЛ 45
- МЕДУЗА 3
- НАРВАЛ 1
- НИКО
- ПРИЯТЕЛ
- PK 21
- PK 26
- PK 27
- PK 28
- PK 29
- PK 3
- PK 31
- PK 37
- PK 40
- PK 41
- PK ДЕВА
- PK ДЕЛТА
- PK ХЕРСОН
- PK ШЕНЮЗЕР
- РУСАЛКА
- РУСАНО**
- СВЕТИ ИЛИЯ
- СВЕТИ НИКОЛА
- СВЕТИ НИКОЛА I

Parameters

Name: РУСАНО

Unit model: INMARSAT-MINIC

Model: []

Vehicle color: []

Creation date: 2006.11.03 Program color: [Green]

Reason level profile: dnid

Garage number: []

Shassis number: []

Note: ВН4445
LZUMV
"СЕВЕР ЕКСПОРТ" ООД ВАРНА
гр. Варна, ул. "Гривица" №9, вх.Б, ап.21
Генчо Куцаров GSM 0887529624
BGVAR
пристанище - Родоп 1
брутотонаж - 19.74
дължина - 15.98
ширина - 5.00

Photo:

Add Edit Remove Clear Image Close

0 6.9 km

LAST EVENTS (30:30) [NO SOUND] [DELETE] [EXPORT] [SETTINGS]

Vehicle	Date	Position time	Reason	Latitude	Longitude	Message	Speed
МЕДУЗА 3	2007.02.01 06:36:08	2007.02.01 06:34:05	DATA_REPORT	042 25' 21"N	027 41' 28"E	---	---
МЕДУЗА 3	2007.01.31 16:32:53	2007.01.31 16:35:00	DATA_REPORT	042 25' 21"N	027 41' 28"E	---	---
МЕДУЗА 3	2007.01.31 14:33:56	2007.01.31 14:36:05	DATA_REPORT	042 25' 19"N	027 41' 28"E	---	---
МЕДУЗА 3	2007.01.31 10:33:01	2007.01.31 10:35:09	DATA_REPORT	042 25' 19"N	027 41' 28"E	---	---

- VEHICLE SETTINGS
- SEND MESSAGE
- STATUS REQUEST

Additional software products

“WebOverMap” and “ZoneMaker”

1. “WebOverMap”

A special software was developed and implemented in operation in order to allow the operator to perform different reports with the system's data.

The purpose of this software is to help the operators in data analysis.

This program is taking a place also in the monitoring of the patrol vessels, helping the operator to submit the necessary information to the inspectors in time and to enhance the control efficiency. In this matter the program will also allow us to record the number of the inspections at sea and according to these records we will be enough flexible to improve and expand the existing control techniques.

Multiple track of the fishing vessels pattern for predefined period—scientific orientated data.



POI
Way Last

- АФАЛА
- БЧ5159
- РК 21
- РК 26
- РК 27
- РК 28
- РК 29
- РК 3
- РК 31
- РК 37
- РК 41
- РК БИСКАЯ
- РК ХЕРСОН
- РК ДЕВА
- РК40
- РЧСАЛКА
- РЧСАНО
- ИАРА 2
- КАЛИАКРА
- КИРИЛ 45
- ПРИЯТЕЛ
- НИКО
- МЕДУЗА3
- СВ ИЛИЯ
- СВ НИКОЛА
- СВ НИКОЛАТ
- ТАИС
- ТРИГОНА
- ЕЗГИМ
- ЕЛИС
- ДЕЛФИН
- ДЕМО
- ЧАВДАР
- АФАЛА 1
- ЭК ШЕНЮЗЕГ
- РК ДЕЛТА
- ИАРА 1
- СЛАВИНО
- СА5360АН
- ВН4569
- С3630НХ
- НАРВАЛ 1

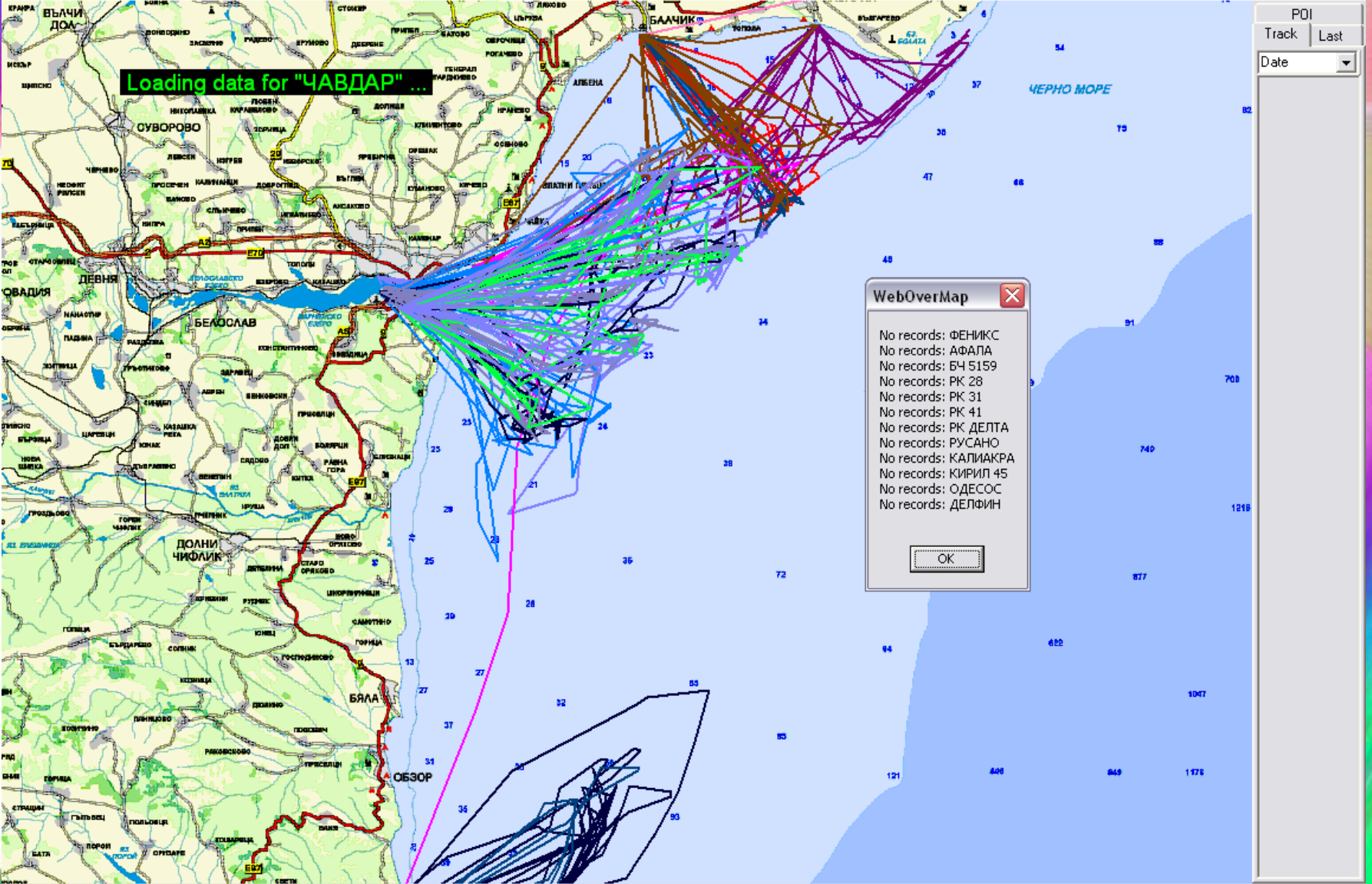
2006.12.14 12:35:29
РК 31

2006.12.14 12:21:45
РК 27

2006.12.14 12:21:24
РК 2006.12.14 12:22:09
МЕДУЗА3

2006.12.14 12:21:43
ЧАВДАР

2/169 | 2006.12.14 | 11:52:12 | 0.0 km/h | 1.53 m | 48.374 km | E=27°27.3703 N=42°29.3065 | ИАРА 1 Бургас



POI

Track Last

Date

WebOverMap

- No records: ФЕНИКС
- No records: АФАЛА
- No records: БЧ 5159
- No records: РК 28
- No records: РК 31
- No records: РК 41
- No records: РК ДЕЛТА
- No records: РУСАНО
- No records: КАЛИАКРА
- No records: КИРИЛ 45
- No records: ОДЕСОС
- No records: ДЕЛФИН

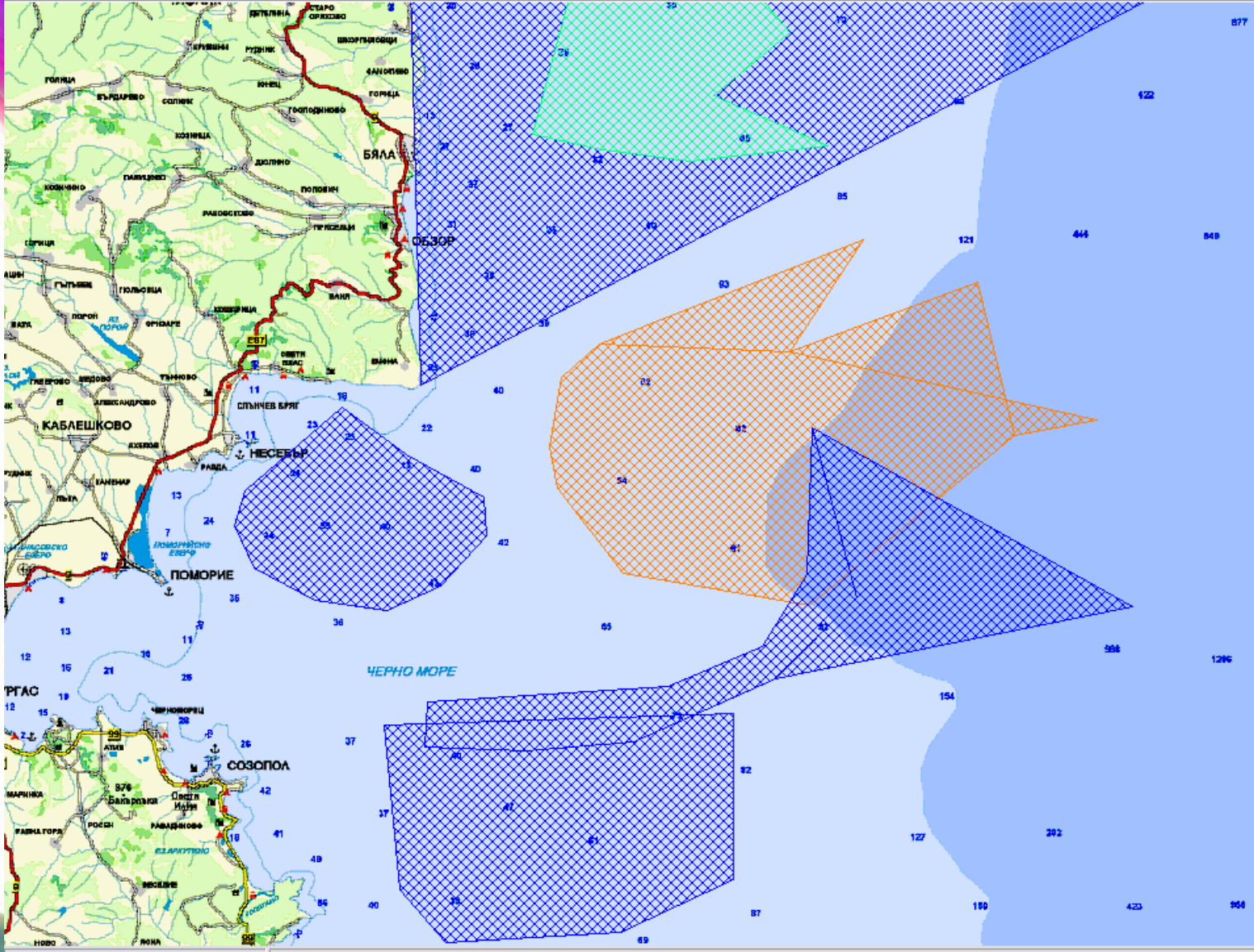
OK

2. “ZoneMaker”

The purpose of this software is to link information about forbidden areas with other programs like “WebOverMap” and to allow the operator to monitor if the offence will occur.

To help the operators in data analysis.

The offenders will be marked in red and sound signalization is also provided.



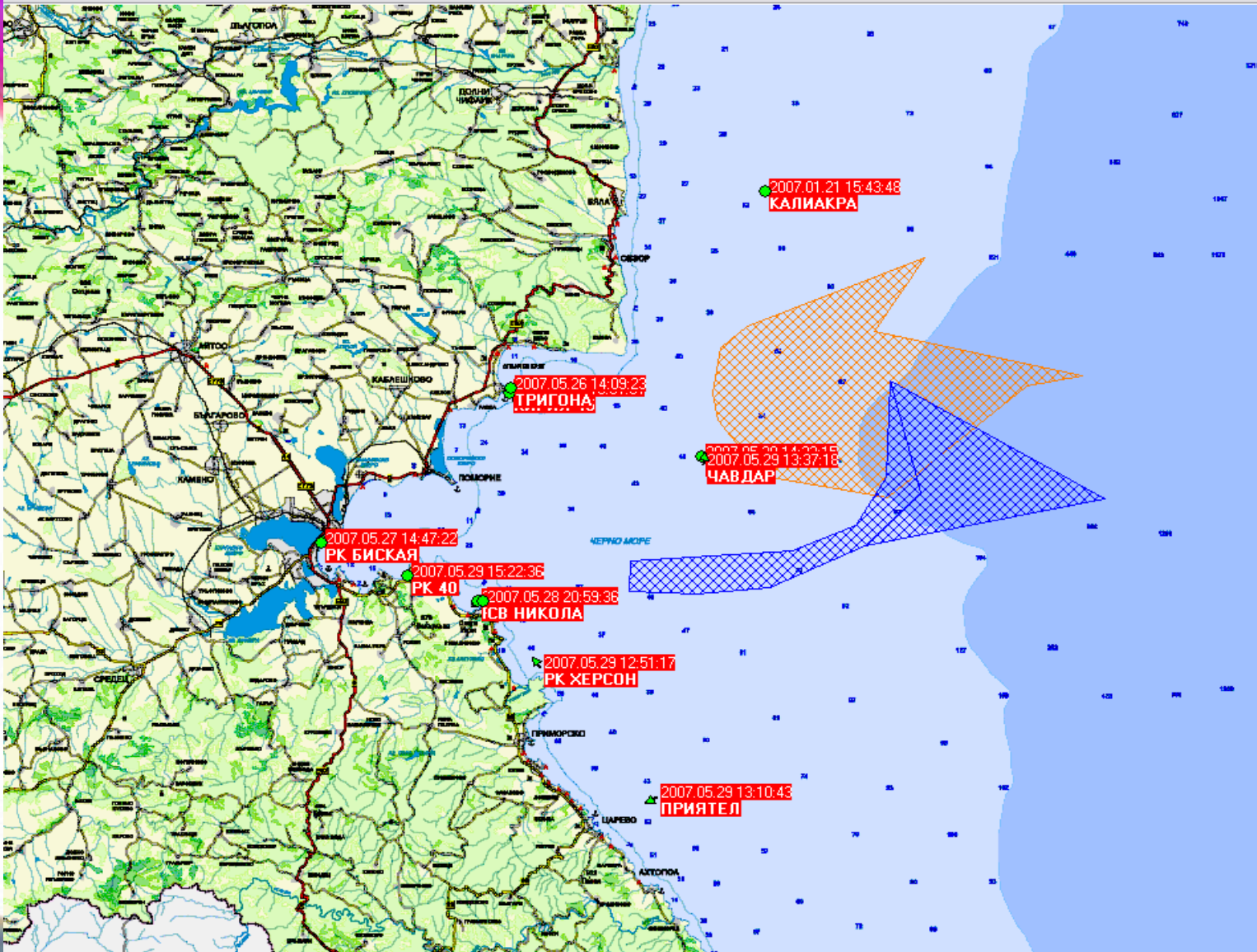
- Залив ВАРНА
- KALKAN
- minko2
- тралала
- TestZoneP
- ppp
- minko3
- TestZoneP1
- TestZoneP2
- minko4
- scortel
- Iva
- Kراسي
- Ива
- Krem
- Buzo
- Niki
- Iva 2

Reload & Refresh

Zone Table All Zones About

E:28°20.7655 N:42°46.3117

Out



POI
Track Last

In Zone

- ФЕНИКС
- ВН 4569
- АФАЛА
- АФАЛА 1
- БЧ 5159
- D+ 55
- D+ 56
- РК 21
- РК 26
- РК 27
- РК 28
- РК 29
- РК 3
- РК 31
- РК 37
- РК 40
- РК 41
- РК БИСКАЯ
- РК ХЕРСОН
- РК ДЕВА
- РК ДЕЛТА
- РК ШЕНЮЗЕП
- РУСАЛКА
- РУСАНО
- ИАРА 1
- ИАРА 2
- ИАРА 3
- ИАРА 4
- КАЛИАКРА
- КИРИЛ 45
- НАРВАЛ 1
- ПРИЯТЕЛ
- НИКО
- МЕДУЗА 3
- ОДЕССО
- С 8640МН
- СВ ИЛИЯ
- СВ НИКОЛА
- СВ НИКОЛА1
- СЛАВИНО
- ТАИС
- ТРИГОНА
- ЕЗГИМ
- ЕЛИС
- ДЕЛФИН
- ДЕМО
- ЧВ ДАР

Auto Center

2007.05.29 13:37:18 2.7 kn E=28°0.8400 N=42°34.5200 ЧВ ДАР

IUU

№	SECTOR Fisheries Control	Infringeme nt, number	quantities confiscate d, kg	Estimated revenues of the IUU products, levs
1	Burgas	99	20318	243816
2	Dobrich	35	451	5412
3	Varna	120	3215	38580
	TOTAL	254	23984	287808

- During last two years we have undertaken measures for amendments of the National legislation. One of the main goals is to increase the amount of sanctions for fishing vessels, their owners and captains, as well as for citizens involved in IUU fisheries.

Impacts of IUU fishing

- Impact of IUU can be both directly and indirectly. The direct impact is reflected in the overfishing, which violates a dynamic balance among marine species. The indirectly impact on IUU affects on the environment and through fishing techniques, discard and disruption of habitats. For example, application of techniques such as bottom trawling leads to a distortion of bottom habitats and the consequences for the entire marine ecosystem. One of the most serious threats to marine biodiversity and sustainable fisheries is illegal, unreported and unregulated fishing.

Management plans

- **Plan for Adjustment of fishing effort. The main characteristics of the plan are management of the entry/exit regime, Information for capacity of the vessels, which was entered/excluded from the FR, segmentation of vessels, scrapping of vessels, redirect a vessels for activities other than fishing, redirecting the vessels for the purpose of tourism, redirecting the vessels to create a museum vessels, redirect vessels for training, redirecting the vessels to create artificial reefs, a permanent cessation of fishing activities, distribution of catches by species and state of fish stocks.**

Responsible authorities

- The main national authorities involved in implementation of the IUU Regulation are:
- NAFA – the Agency is contact point for the implementation of the IUU Regulation. Its main activities are fisheries control, granting fisheries permissions, verification and validation of catch certificates, designating of ports for landing and transshipments for third countries fishing vessels.

- Customs Agency, which is competent authority for customs control, authorization, suspension and denial of importation or exportation.
- Bulgarian Food Safety Agency, Directorate “Border Control” which carries out state veterinary control of imported/exported animal products.
- Directorate General “Border Police” at the Ministry of Interior, which implements control in National waters and EEZ;
- Maritime administration Agency and Bulgarian Ports Infrastructure Company – these authorities are responsible for port access and granting of port services.
- The activities of all authorities are coordinated by Instruction for co-operation





Thank you

for the attention!