

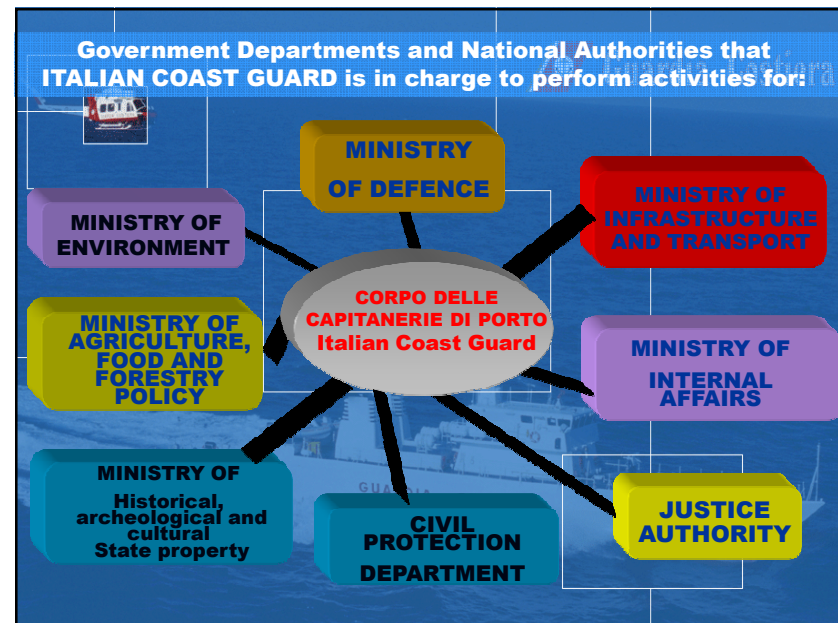




FMC
FISHING MONITORING CENTRE

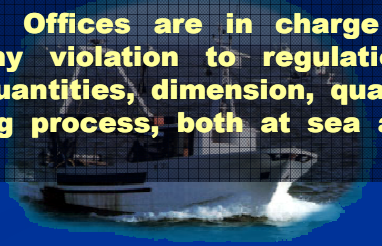
“ITALIAN VMS SYSTEM AND FMC ACTIVITIES”
Luigia CAIAZZO, Dario CAU, Luca PROTETTO, Simone SERRA

GFCM Workshop on the Implementation of a Vessel Monitoring System (VMS) in the Mediterranean and the Black Sea
28-30 November 2011, Zagreb, Croatia



Activities performed for Ministry of Agriculture, Food and Forestry Policy

- Italian Coast Guard Headquarters is the Italian deputy for fishing activities control and National Centre for Fishing Control by European Community Rules.
- Coast Guard Offices are in charge of the control over the whole process of fishing products, “from the sea to the table”;
- Coast Guard Offices are in charge to ascertain any violation to regulations related on quantities, dimension, quality of the fishing process, both at sea and land;



SHIP REPORTING SYSTEMS IN USE

Italian Coast Guard is responsible for:

VMS, AIS (national and regional, MARES), VTMS and LRIT Systems

NEW SYSTEM ARCHITECTURE

- NATIONAL FMC - ROME
- 16 AREA FMC'S
- EU LIAISON OFFICE
MINISTRY OF
AGRICULTURE, FOOD AND
FORESTRY POLICY- ROME
- AROUND 2000 FISHING
VESSELS EQUIPPED WITH
BLUE-BOX



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FISHERIES SHIPS EQUIPPED WITH BLUE-BOX

Fishing Vessels	Number of units
> 24 mt	493
18 – 24 mt	414
15 – 18 mt	996
12 – 15 mt	between 200-900 according to the dispensation in place**

* In accordance with 404/2011 (implementation rules to the Council regulation 1224/2009, dispensation is allowed for under 24 hours fishing trips and only for fishing vessels which go fishing inside territorial waters.

STANDARD OPERATIONAL PROCEDURES

- 24H ON WATCH
- NATIONAL FMC SUPERVISE AREA OPS
- AREA FMC'S SURVEILLANCE AND ENFORCEMENT
- CONTINUE MONITOR
- IMMEDIATE ALERT
- HISTORICAL DB
- HIGH CAPABILITY UP TO 5000 SHIPS
- HELP DESK ASSISTANCE EVERYWHERE

Anagrafica			
Matr. Ident.	00950037591	Nominativo Internazionale	IRWC
Nome Nave	REGINA	Tipo	PC
N. CEE	26676	N. Equipaggio	003
N. Licenza	01294	N. INMARSAT	424760942
Proprietario	GI. PE. AR. PESCA DI GIAMETTA GIUSEPPA & C. SNC		
Caratteristiche			
Anno Costruzione	2005	Stazza Lorda	129,39
Stazza Netta	64,23	Lungh. P.T.	29,26
Dati di Posizione			
Posizione	09°18'24"N 01°05'12"E	QDO	19/11/2009 15:58
Vel.	3.0	Rotta	180
Stato	CODICE CONTROLLO ASSISTENTE		

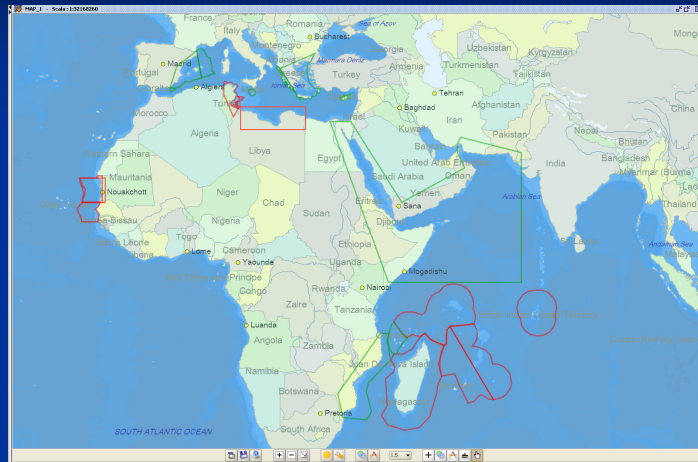
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AREAS OF INTEREST WHERE ITALIAN FISHING VESSELS WORK



AREAS OF INTEREST IN THE MEDITERRAN SEA



HEADQUARTERS ITALIAN COAST GUARD GUARDIA COSTIERA

WEB BASED

S.C.P.

SISTEMA
CONTROLLO
PESCA

Utente: OPERATORE

Password:

LOGIN

C.C.N.P.

CENTRO DI CONTROLLO NAZIONALE DELLA PESCA

DIREZIONE GENERALE
DELLA PESCA E
DELL'ACQUACOLTURA

COMANDO GENERALE
DELLE CAPITANERIE DI PORTO
CENTRALE OPERATIVA

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HEADQUARTERS ITALIAN COAST GUARD GUARDIA COSTIERA

WEB BASED

S. C. P. Sistema Controllo Pesca

[Messaggi](#) [Anagrafica Imbarcazioni](#) [N°Inmarsat](#) [Stato Imbarcazioni](#) [Tabelle](#) [Statistiche](#) [Riepiloghi](#) [Progetti pilota](#) [Check Mensile & Help Desk](#)

Ricerca

Filtra Attivo

Parametri di Ricerca:
N.UE 13272,26964
Dal 20/10/2009 00:00
Al 19/11/2009 14:18
Records: 792

LIST OF POSITIONS OF THE GROUPS OF FF/VV

pagina 1/40

N° UE	Nome Imb.	Targa	Classe	Data/Ora	Validità	Latitudine	Longitudine	Velocità (Nodi)	Rotta (Gradi)	Strumento	Allarme
13272	ROSA PRIMA	01RO01606	PI	19/11/2009 13:28:00	SI	41°20'28"N	12°52'38"E	4.6	278	G	800 - CODICE CONTROLLO ASSENTE
26964	CIRO PADRE	03NA02285	PI	19/11/2009 13:28:00	SI	40°48'21"N	13°58'2"E	10.8	134	G	800 - CODICE CONTROLLO ASSENTE
13272	ROSA PRIMA	01RO01606	PI	19/11/2009 11:31:00	SI	41°20'7"N	12°53'45"E	4.6	98	G	800 - CODICE CONTROLLO ASSENTE
26964	CIRO PADRE	03NA02285	PI	19/11/2009 11:30:00	SI	40°50'14"N	13°53'52"E	3.2	324	G	800 - CODICE CONTROLLO ASSENTE
13272	ROSA PRIMA	01RO01606	PI	19/11/2009 09:36:00	SI	41°19'26"N	12°54'12"E	2.2	310	G	800 - CODICE CONTROLLO ASSENTE
26964	CIRO PADRE	03NA02285	PI	19/11/2009 09:35:00	SI	40°52'45"N	13°52'28"E	3.2	134	G	800 - CODICE CONTROLLO ASSENTE
26964	CIRO PADRE	03NA02285	PI	19/11/2009 09:35:00	SI	40°52'45"N	13°52'28"E	3.2	134	G	800 - CODICE CONTROLLO ASSENTE

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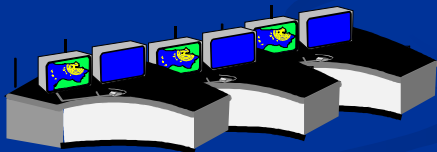
SOFTWARE MESSAGE

DATA REPORT

ALERT MESSAGE

POLLING

EGC –ENHANCED GROUP CALLS



VMS WORKSTATION

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SOFTWARE ALARM CODE

•COLLISION	RED
•SUNK	RED
•ABANDON SHIP	RED
•INTERDICTED WATERS	RED
•FIRE ON BOARD	ORANGE
•BLUE BOX OFF	ORANGE
•ANTENNA VIOLATION	ORANGE
•SHIP ENGINE OFF	ORANGE
•BLUE BOX ON	GREEN
•EU WATERS	GREEN
•NON EU WATERS	BLACK
•BLUE FIN TUNA	HALF VIOLET
•TROWLERS	HALF BROWN
•F/V WITH "GAPS"	HALF BEIGE

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VMS EXCHANGE DATA VIA HTTPS PROCEDURE

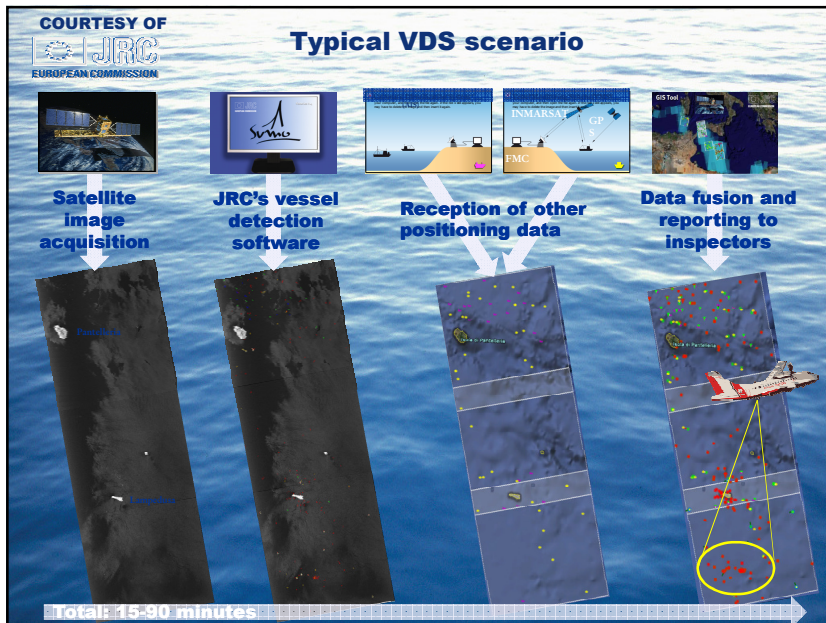
- Exchange data position with third countries where EU has stipulated fisheries agreement and where FMC has been established
National F/V operating in Madagascar, Seychelles, Mauritania, Mozambico and Comores;
- Exchange data position with CE DG MARE and CFCA for JDP (Joint Deployment Plan) during BFT campaign (ICCAT).
- Exchange data position with E-GEOS for GMES (MARISS and MARISS scaling up) project for Fp7 Global plan for border security;
- Exchange with EMSA in the framework of the SSN/VMS pilot project

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FMC ACTIVITIES USING SATELLITE IMAGES

- PILOT PROJECT WITH JRC (VDS campaign)
- MARISS (FP7)

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COURTESY OF JRC EUROPEAN COMMISSION

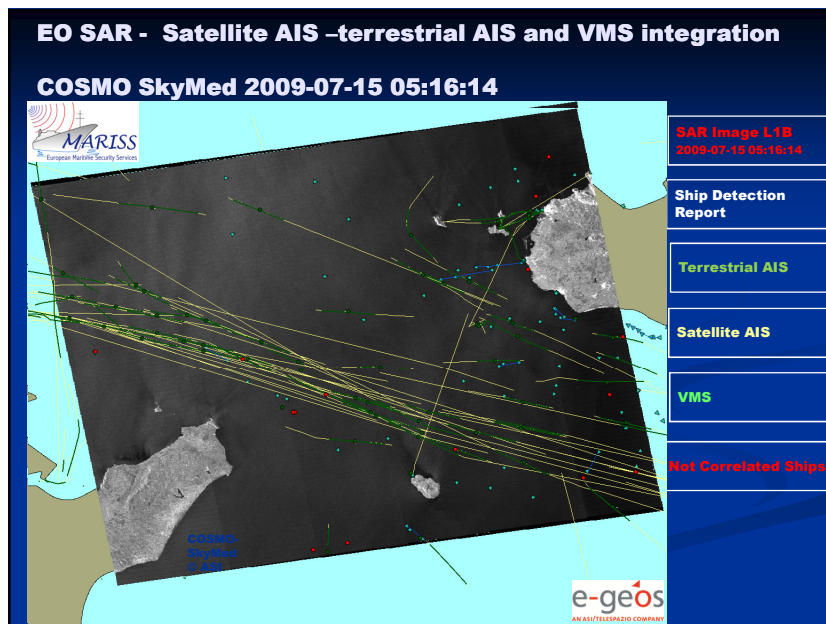
Reporting to inspection means

- List of target positions
- xml file
- .kmz file (Google Earth)

VDS ID	VDS Heading	VDS Lat	VDS Lon	Towing (# cages)	IRC/Callign	VMS AIS Heading	Gear type	Name	Length	ICCAT reg	ICCAT auth
5		35.1883	14.17003	0	PHAVI2	174	log	CAPO MOLINO	40	Yes	farming
348	145.25	35.2564	15.2811	0	24030007625	200	OTB	ALCOS	32.7	Yes	
340	135.23			16 VDS's not correlated with VMS				C	34.95	Yes	
366	33.14							INE	33.3	Yes	
391								IA	27.00	Yes	farming
397		218	small	35° 14' 20.44"	13° 58' 51.88"						farming
379		379	medium	35° 18' 35.38"	14° 1' 35.14"			TEV	27	Yes	farming
398	312.06	348	small	34° 58' 8.70"	14° 42' 5.28"			NINOSNOVEBE	23.45	Yes	
404	153	353	medium	34° 47' 12.33"	13° 58' 55.84"			ERO	32.8	Yes	
405								WYNAL	91.5		
373		373	small	35° 8' 43.71"	14° 18' 53.29"						
374		374	small	34° 57' 38.89"	14° 15' 51.52"	145.20					
376		376	medium	34° 58' 59.78"	14° 17' 3.87"						
388		388	medium	35° 14' 4.37"	14° 22' 35.98"						
396		396	small	35° 1' 25.00"	14° 27' 35.14"						
399		399	small	34° 28' 58.77"	14° 2' 42.04"						
400		400	medium	34° 20' 3.29"	14° 10' 59.72"						
401		401	medium	34° 40' 24.81"	14° 27' 3.32"						
403		403	medium	34° 20' 11.29"	14° 10' 15.12"						
405		405	small	34° 40' 14.52"	14° 28' 4.2"						
406		406	medium	34° 40' 8.30"	14° 28' 4.2"						

Legend:

- VDS: correlated (green), additional (red), uncorrelated (blue)
- VMS: correlated (yellow), uncorrelated (orange)
- AIS: correlated (purple), uncorrelated (brown)
- Sightings: blue arrow
- Cages: blue circle
- Towing direction estimated: green line
- Size options: Large, Medium, Small
- Other categories: Tug, Reefer



PILOT PROJECT - SSN / VMS SYNERGIES

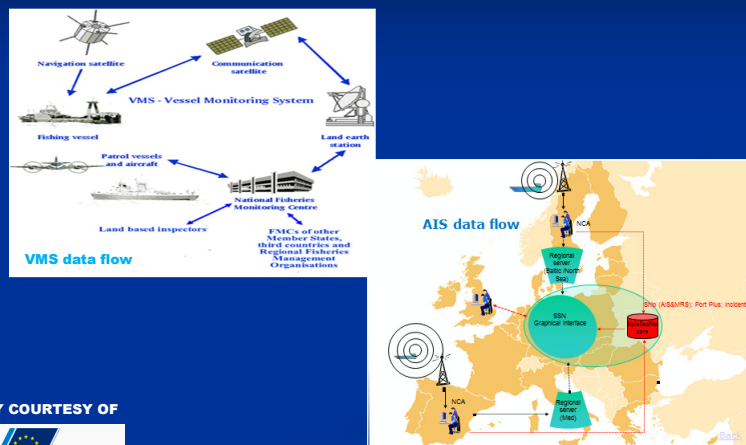
VMS & AIS : background information

- **VMS**
 - All EU fishing vessels above 12 meters are to be fitted with VMS equipment to monitor the fishing activities (Regulation No. 1224/2009, art. 9)
 - VMS data is sent to FMCs via satellite
 - FMCs monitor the location of fishing vessels:
 - National flag: regardless location
 - EU MS flag: when within the area of FMCs responsibility
 - Third countries: in waters of MS jurisdiction
- **AIS**
 - All ships above 300 GT are fitted with AIS (IMO SOLAS V/19) to identify and monitor the ship movements
 - Extended to vessel traffic monitoring (Article 9 of Directive 2002/59 EC), shore-based AIS networks: more than 700 AIS base stations
 - Fishing vessels < 45m (15m: till- 31 May 2014)

BY COURTESY OF

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Data flow



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VMS/SSN synergies pilot project: Why?

Objectives

- To provide free of charge, more frequently updated information on fishing vessels to the flag/coastal FMC when operating within shore AIS coverage
- To evaluate and test communications between FMCs through SSN
- To evaluate the synergies and indicate the added value that SSN can bring to the VMS sector

Legal basis

- Framework of “integrated maritime policy”; supports cross-sectoral cooperation
- Directive 2002/59/EC (as amended): fishing vessels over 15m to be AIS equipped by 2013/2014
- Council Regulation No. 1224/2009 (Article 10): correlation of AIS – VMS by Member States

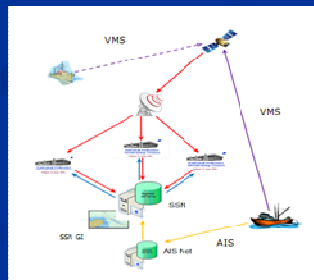
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Operational concept

- A limited amount of VMS data (e.g. for 5 fishing vessels) from the participating FMCs will be provided to SSN using an interface only accessible to the pilot project participants
- The VMS data will be correlated with and displayed on a graphical, web-based interface (SSN GI) made available to FMCs
- AIS messages collected by SSN will be distributed to participating FMC after conversion to NAF format

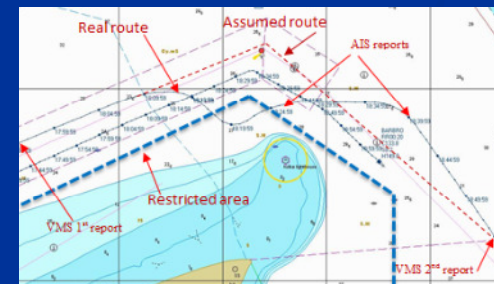


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Expected benefits

- More up-to-dated information for FMCs (2h : 6 min)
- More detailed indication of vessels activities
- Verification of data
- Monitoring continuation in case of technical failure
- No additional communication costs
- Other



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IMPORTANCE AND ADVANTAGES OF DATA SHARING

THIS ALLOWS FOR A COMMON RISK MANAGEMENT AT REGIONAL LEVEL

CROSS-CHECKING VMS AND ANY OTHER INFORMATION AVILABLE (SHIP REPORTING SYSTEMS AND SATELLITE IMAGES) IN ORDER TO DISCOVER **IUU FISHING VESSELS**



ANY QUESTION?



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dario.cau@mit.gov.it