



Professor Ronán Long,  
Jean Monnet Chair EU Law,  
School of Law,  
NUI Galway.

# Overview

1. VMS, history, & architecture
2. Regulatory features
3. Enforcement & compliance
4. Conclusions



Photo source: [Irishpelagic.com](http://Irishpelagic.com)

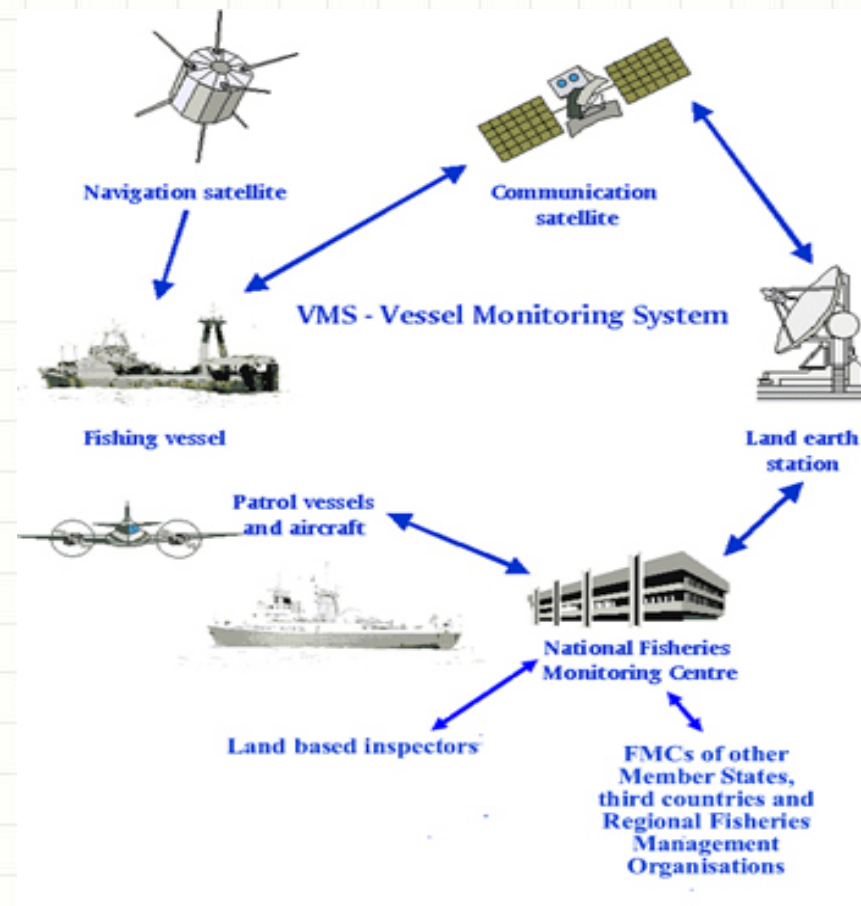
# Definitions



1. “vessel monitoring system” (VMS) ....means a satellite- based fishing vessel monitoring system providing to the fisheries authorities data at regular intervals on the **location**, **course** and **speed** of vessels
2. “automatic identification system” (AIS) .... means an **autonomous and continuous vessel identification and monitoring system** which provides means for ships to electronically exchange with other nearby ships and authorities ashore ship data including identification, position, course and speed (anti-collision system)

1. Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy, OJ L 343, 22.12.2009, p. 1.
2. COMMISSION IMPLEMENTING REGULATION (EU) No 404/2011, OJ L 112/1, 30.4.2011

# VMS Architecture





# Regulatory Features

1

- Applies to all EU fishing vessel & all third country vessels in EU waters (over 12 m in length)

2

- Exemption: vessels operating exclusively within the territorial seas of the flag Member State; or never spend more than 24 hours at sea

3

- Fisheries Monitoring Centre ... electronic data processing and transmission:
  - (1) vessels of flag Member State in all waters
  - (2) EU and third country vessels operating in sea areas under national sovereignty and jurisdiction





# Automatic Identification System

- Ship carries a transponder that automatically communicates to all neighbouring ships by VHF radio, radar, and to coastal AIS station and network
- Applies to all EU fishing vessels >15m from 2014
- Can be used for cross-checking with other available data including VMS data



Directive 2009/17/ EU (VTMIS) requires fishing vessels above 15 m length being fitted with Automatic Identification System (AIS) by 31 May 2014.

Chapter V, Regulation 19, section 2.4.5 of the 1974 SOLAS Convention.

## Choose Map

Irish Sea

Irish Sea

Go

No refresh

Go

## Latest AIS

Map

Hist

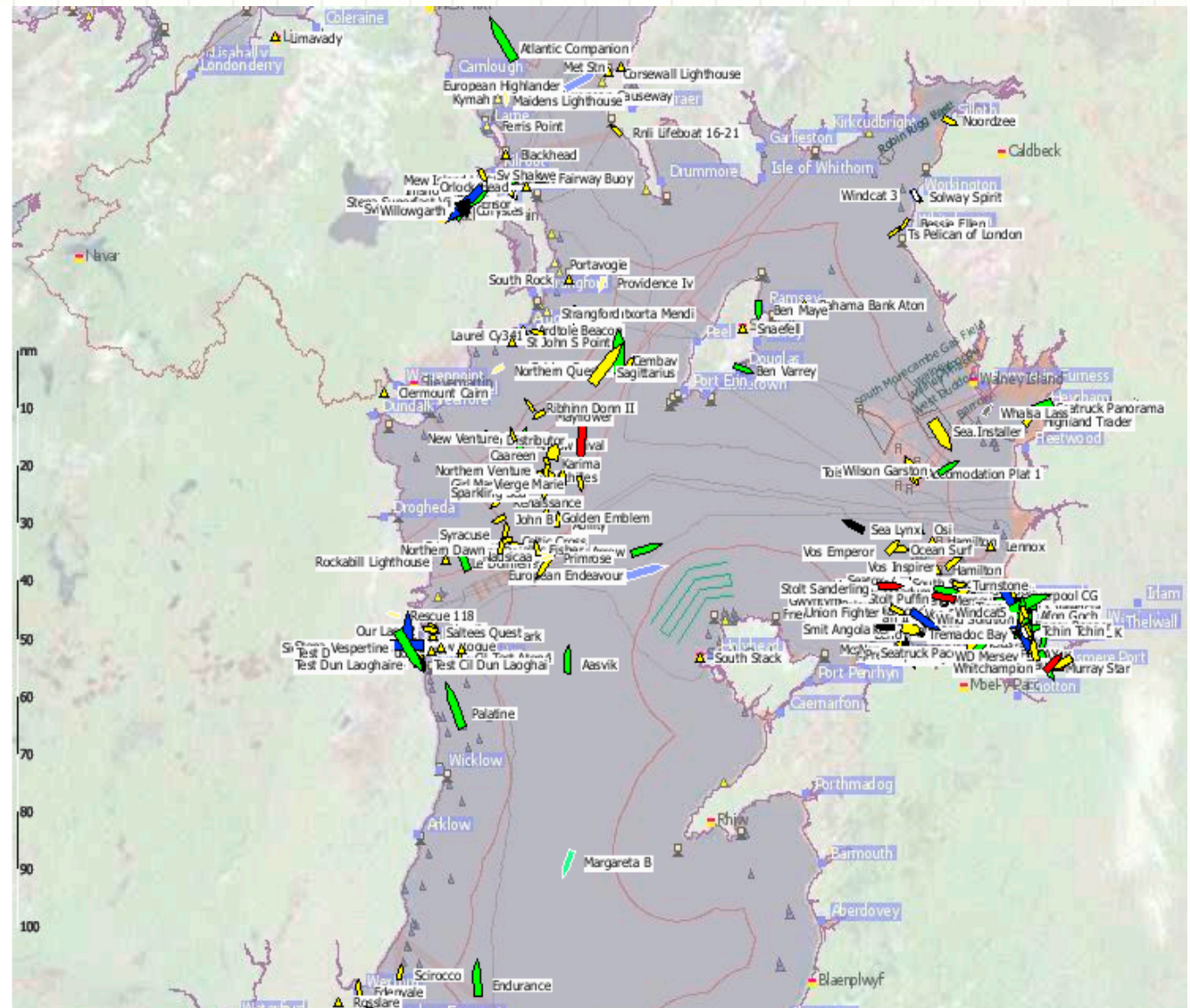
?

Photo

+

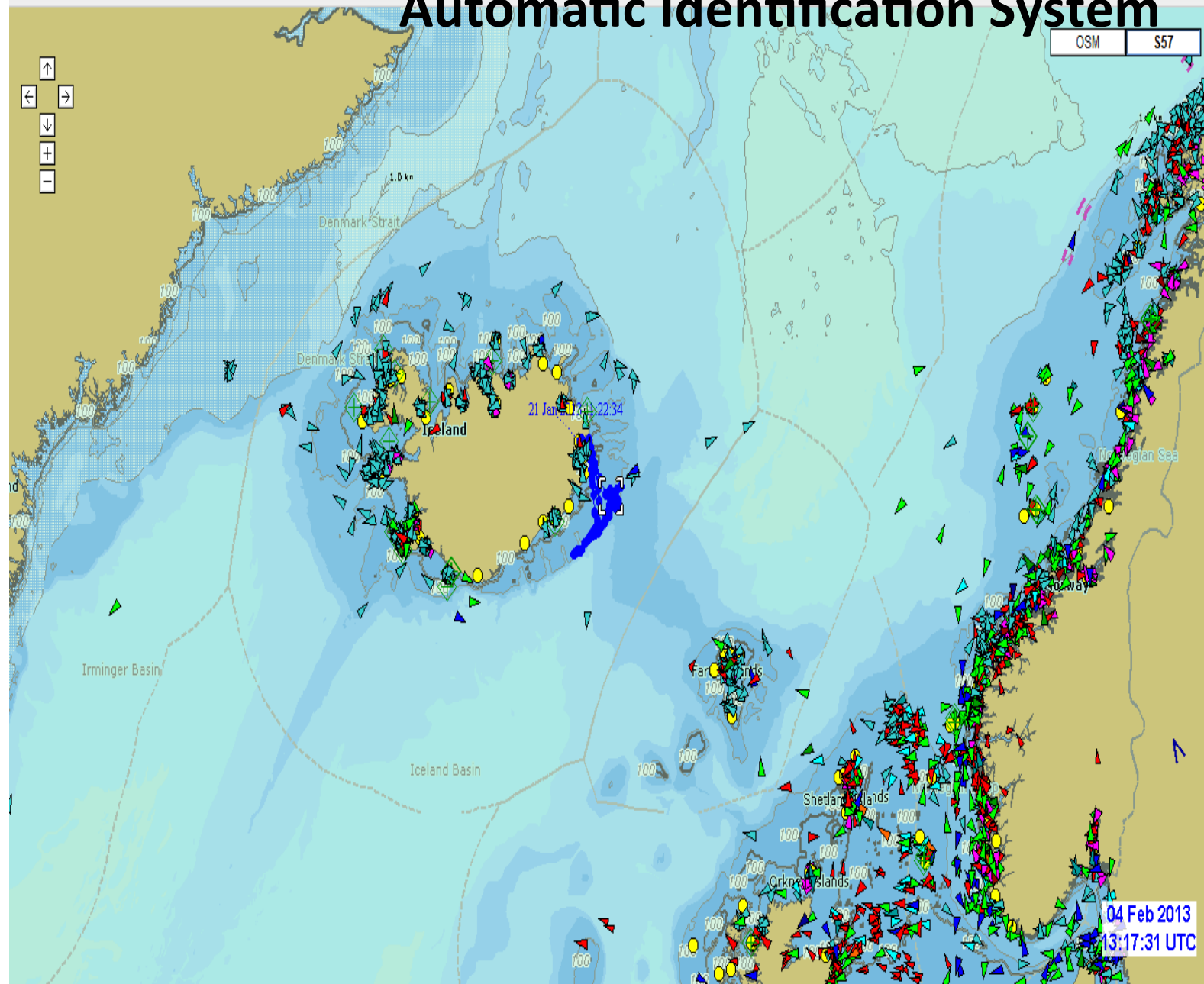


Name: Galway Fisher  
MMSI: 234552000 [UK]  
IMO: 9118161  
Callsign: MWBK9  
Speed/Dir: 0 kts / 357° N  
Status: Underway  
Dest: Galway  
ETA: Jun09 16:45  
Type: Tanker (80)  
Details: Oil Products Tanker  
Size: 91m x 16m x 5.8m  
Tonnage: 3368gt, 4968dwt  
Built: Jul 1997  
Received: 17:54:12 20 Jun 13 BST



Source: [www.shipais.com](http://www.shipais.com)

# Automatic Identification System



OSM S57

Target Info [Download vessel track](#)

Name	Value
MMSI	251049110
AIS Unit	Class A
Name	GULLVER
Callsign	TFPG
Latitude	64°32'33.720"N
Longitude	012°30'03.240"W
IMO	8211851
Source Type	AIS-S
Ship Type	Fishing
Cargo	Undefined
Country	Iceland
SOG	3.9 kn
Draught	12.9 m
COG	201.1 °
Heading	195 °
ROT	0.0 °/min
Width	10 m
Length	50 m
Destination	SEYDISFJORDUR
Nav. Status	Fishing
ETA	10:02:00 04 Feb 2013
Pos. Accuracy	Low

Find Target

Attribute:

Name ▾

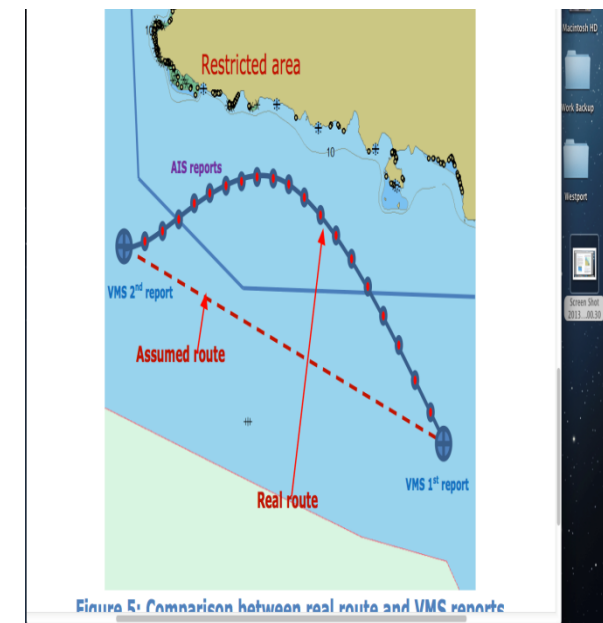
Search string:

Find



# Pilot Projects

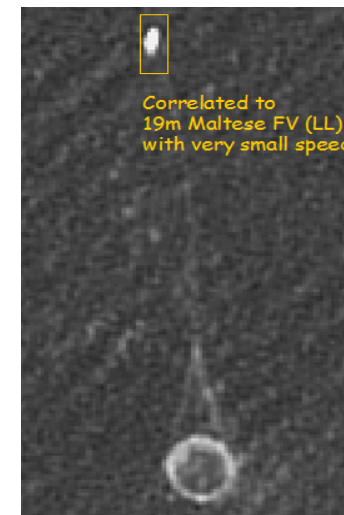
1. **SafeSeaNet/VMS Project:** cross-checking VMS position reports with AIS data
  - a. A substantially improved vessel position monitoring capability (every 6 minutes, instead of 2 hours);
  - b. An increased level of confidence thanks to the ability to correlate two different types of information;
  - c. No requirement for technical or organisational intervention by FMCs
2. **Maritime surveillance pilot project** (AIS, VMS, Sat-AIS, LRIT, SAR-Images, inspection and surveillance information)



Art. 10 of Council Regulation 1224/2009/EU allows the use of AIS to cross-check data from other sources

# Vessel Detection System

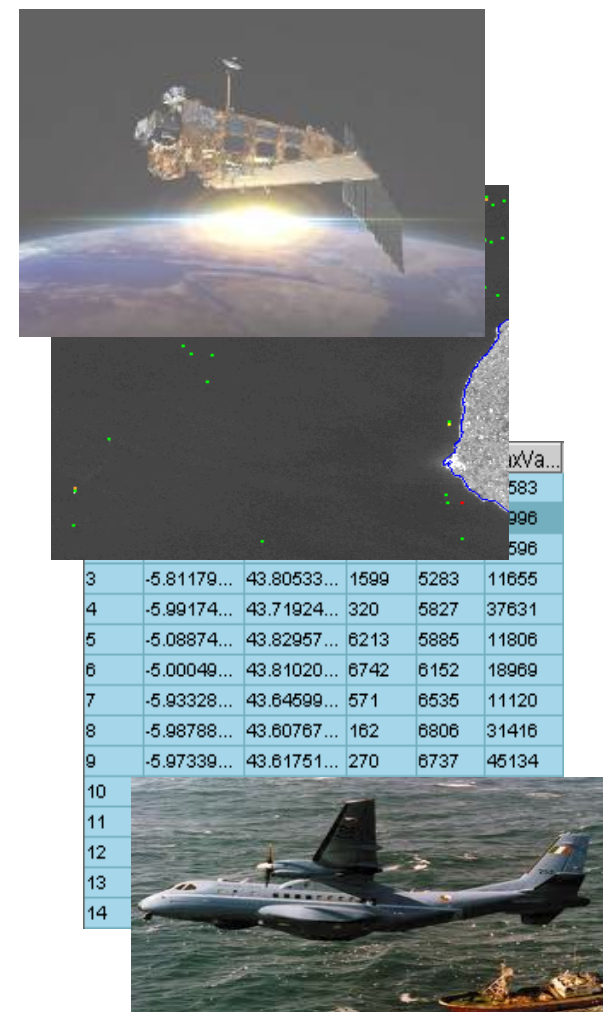
- Where Member States have clear evidence of a cost benefit in relation to the traditional control means in the detection of fishing vessels,
- ...they shall use a vessel detection system allowing them to **match** the positions derived by **remotely sensed images** sent to earth by satellites or other equivalent systems with the data received by VMS or AIS, in order to assess the presence of fishing vessels in the area.



Optical satellite images  
Source [European Commission – Joint Research Centre](#)

## Transmission of data for surveillance operations

Data from the VMS, the AIS and the vessel detection system collected in the framework of this Regulation may be transmitted to Community agencies and competent authorities of the Member States engaged in surveillance operations for the **purpose of maritime safety and security, border control, protection of the marine environment** and **general law enforcement**.

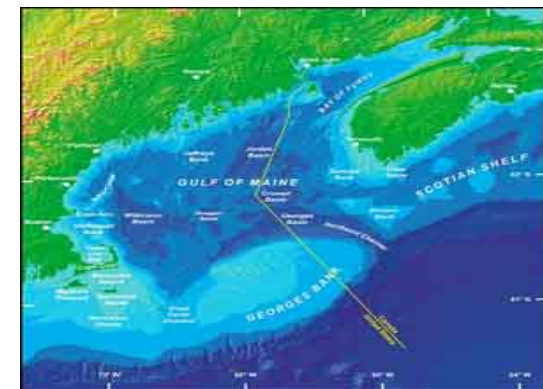


# Evidence

- VMS technology applied in evidence for the first time in the United States with the successful prosecution of **F.V. Independence (1998)**
- **Vessel** detected inside closed area located near the outer boundary of the US EEZ
- Held: VMS system is a reliable system - reporting positioning data accurately 95 percent of the time within 300 meters of the actual position
- \$250,000 penalty and revoked the vessel and operator permits
- Administrative proceeding
  - Standard of proof "preponderance of the evidence", in contrast to "beyond reasonable doubt" in criminal trial



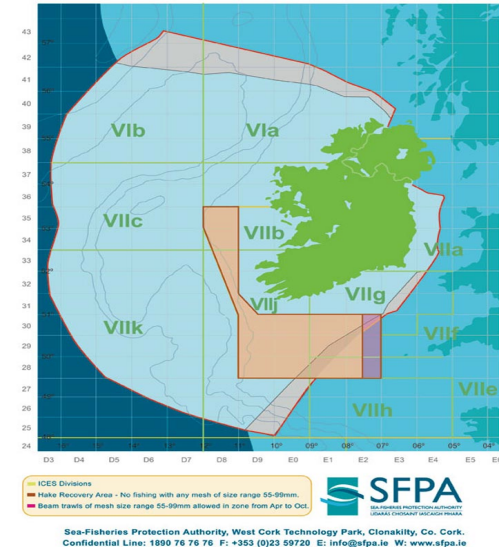
Freshly caught scallops on the deck of a fishing boat.





# Enforcement in EU Member States

- Criminal / administrative / judicial review / civil actions.
- No EU rules on the use of VMS as direct evidence
- Member States rules on evidence vary
- In criminal proceedings questions may be raised regarding admissibility, authenticity, reliability and collaboration
- Experience in the EU has shown that in certain proceedings in some Member States, the courts of one jurisdiction have accepted VMS data provided by the FMC of another Member State.
- Types of fishery cases in which VMS data has been used, include:
  - Unlawful entry into a restricted area
  - Failure to maintain properly the logbook
  - Illegal Fishing
  - Tampering with VMS equipment
  - Provision of false information



# Compliance

- **Court of Auditors Special Report No 7/2007**
  - a. No systematic cross-checks on the consistency of VMS data in Denmark, France, Italy, the Netherlands and the UK
  - b. These issues formed part of on-going infringement proceedings against Member States under Treaty.
- **Case C-22/04, *Commission V Greece*** (Judgment of 14 April 2005, unpublished)
  - Greece failed to ensure compliance with VMS Reg. by specified deadlines
- Court of Auditors recommended use of IT tools to systematically verify the consistency of all other data against VMS data



# Conclusions

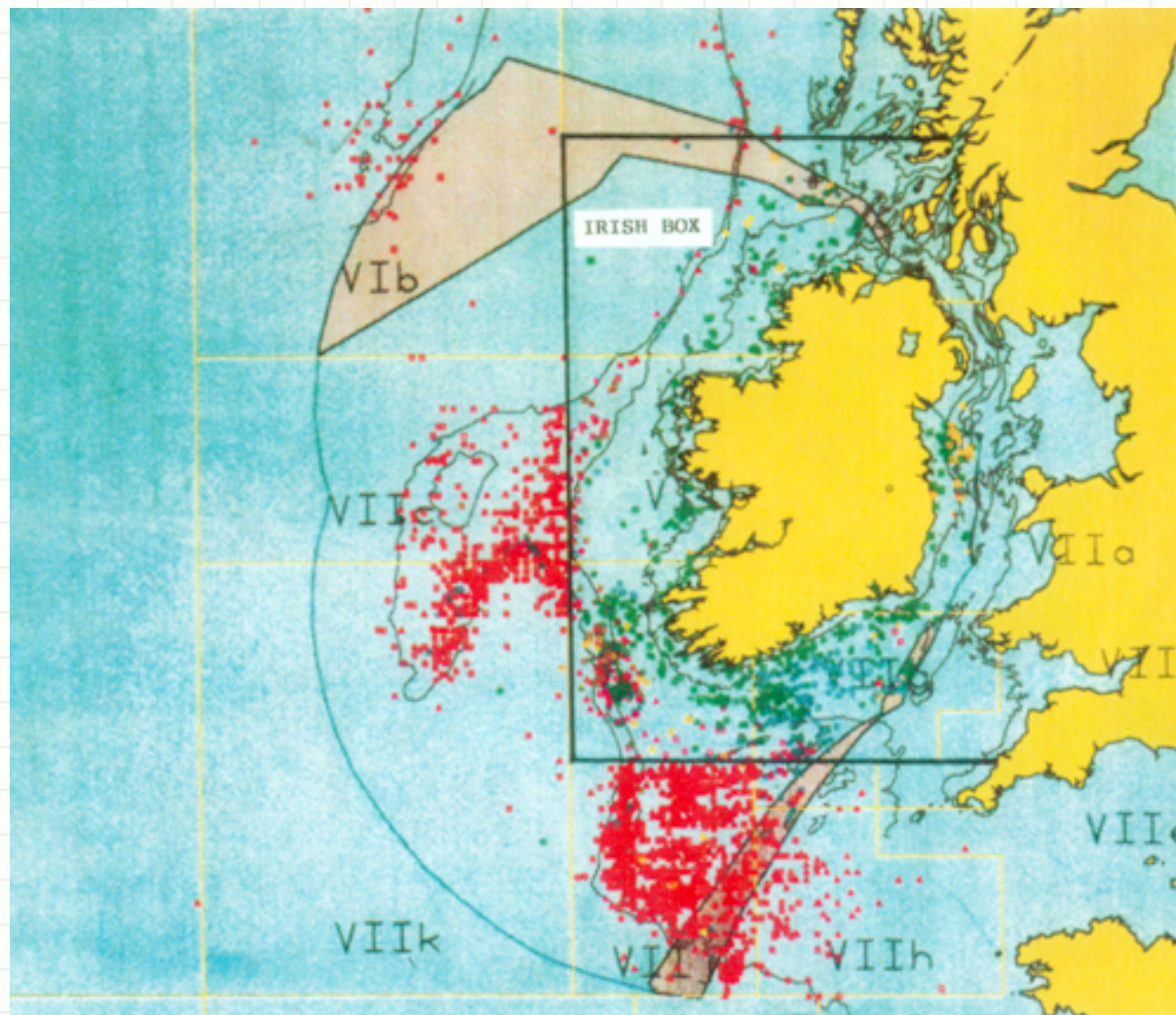
1. EU has regulated the use of modern satellite-based technologies for monitoring, control and surveillance of fishing vessels since 1998.
2. Purpose: improve efficiency and cost effectiveness of law enforcement.
3. VMS legislative framework addresses functionality and technical issues such as transponder specifications, responsibilities of flag /coastal / port States, system architecture.
4. VMS data is used in evidence for law enforcement proceedings in several Member States including Ireland, United Kingdom, Spain and France.
5. Fines for fishery offences [IRE -mandatory catch & gear][UK £1.6 million fine two Spanish vessels fishing in Ireland and Scotland –Truro Crown Court, July 2012 ].
6. France fined €20 million Euro for non-compliance with CJEU judgment on CFP [Case C-304/02].
7. Member States and European Agencies testing the integration of new technologies [SafeSeaNet/VMS and Maritime Surveillance Pilot Project].
8. VMS is now a standard feature in the fisheries law of over 60 countries and 15 international organisations.

# Publications

- S. Monteiro, J. Vazquez, R. Long (Article), “Improving fishery law enforcement” , AEGEAN REVIEW OF THE LAW OF THE SEA AND MARITIME LAW Vol.1, June 2009, No.1, pp. 95-109.
- R. Long, P. Curran, ENFORCING THE COMMON FISHERIES POLICY, (Oxford, Blackwell Science, 2000), (Malden MA, Blackwell Science Inc, 2000), (Carleton, Australia, 2000), ISBN 978-0852382615), pp.379.







Source: FMC, Naval Service, Ireland