

The use of Earth Observation data in the Maritime Spatial Planning and Fisheries Management

Rogério R. Ferraz

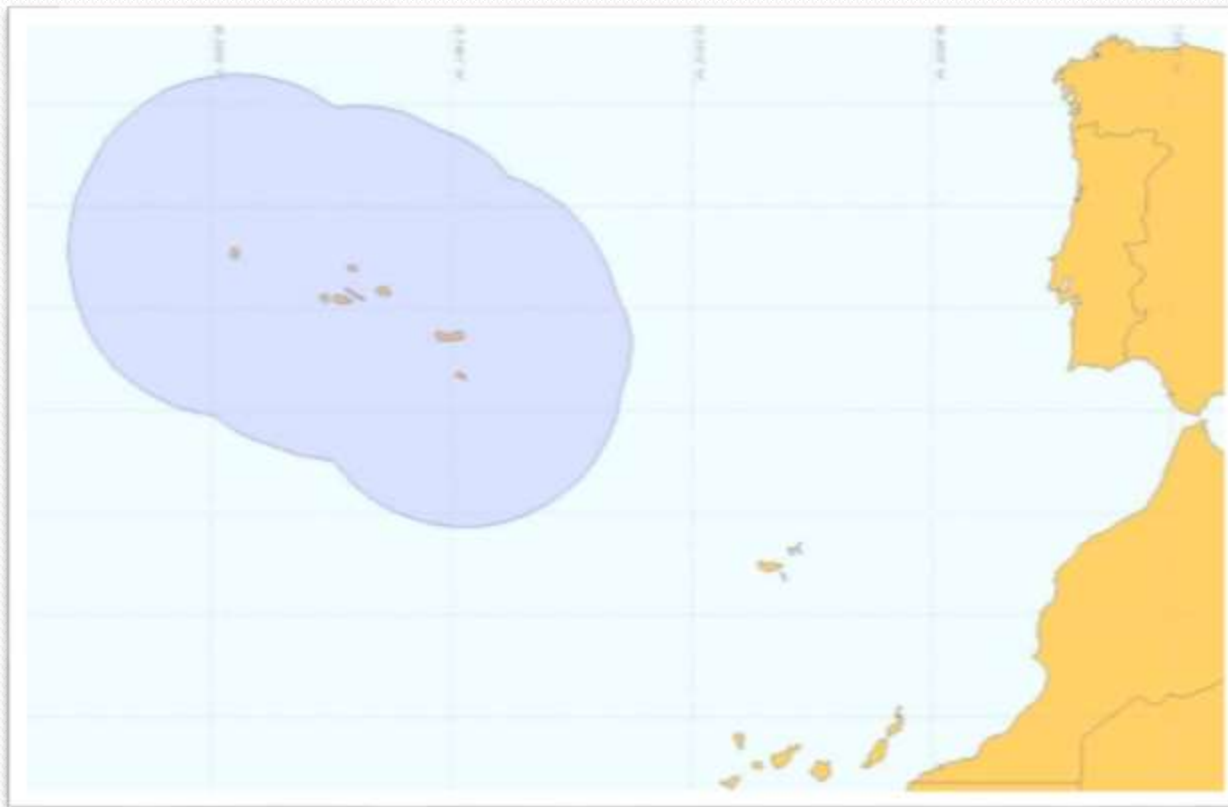


The Regional Fisheries Inspection



Azores

- 1.000.000 km²



Inspection nucleus

- Nucleus
 - Faial (headquarters)
 - 3 inspectors
 - Pico
 - 1 inspector
 - Terceira
 - 2 inspectors
 - São Miguel
 - 3 inspectors
- Regular missions in all the islands without permanent nucleus
- Regular missions with Navy, Maritime Police and GNR



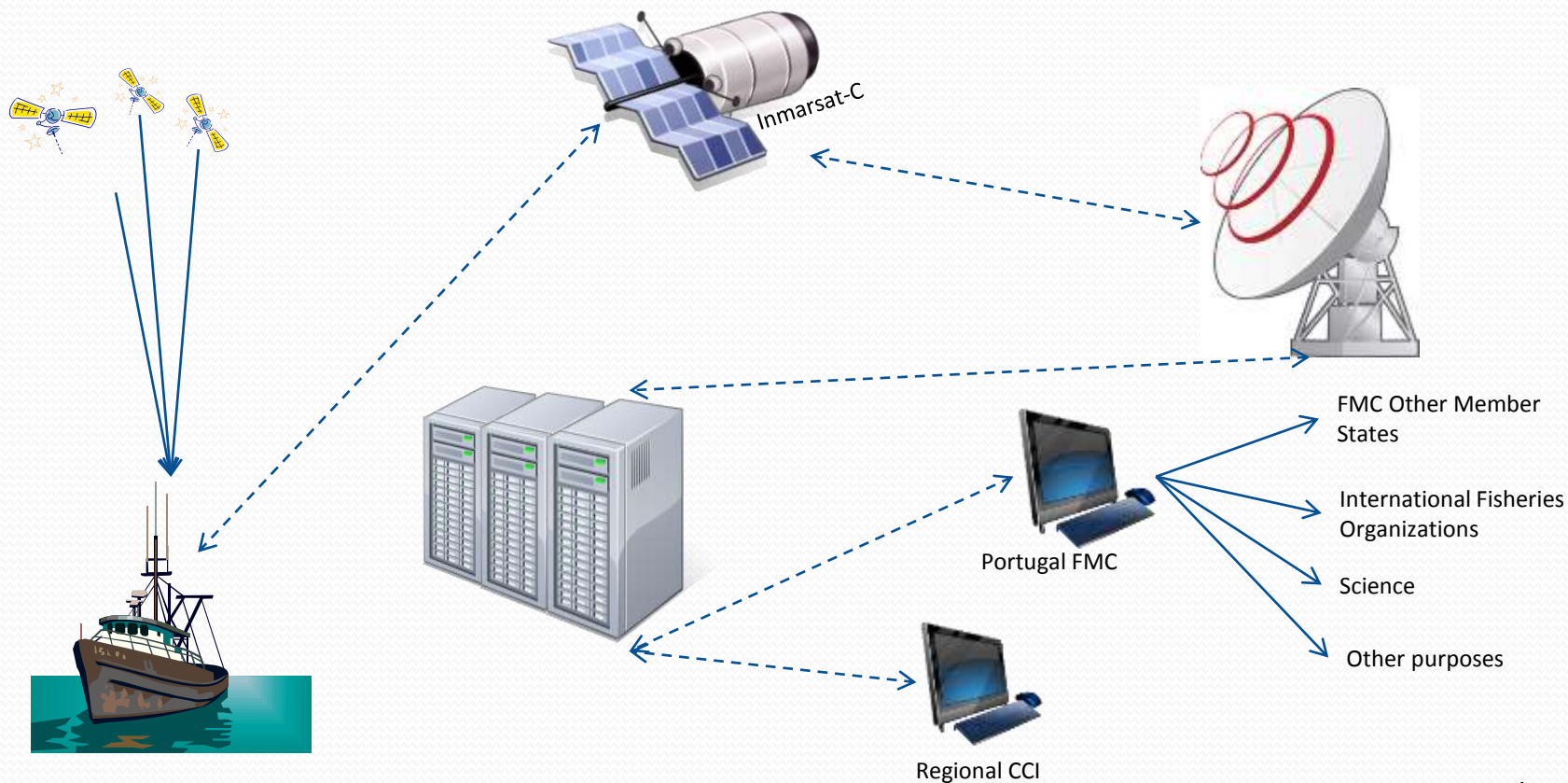
General data about fisheries

- 61 harbours and small harbours
- 11 Auctions
- 700 professional fishery vessels
 - The major quantity are open deck with LOA of 6 to 12 m
 - Several gears in use on the same vessel (pull and line, hand lines and bottom longline)
- About 4.500 professional fishermen (including professional harvesters)
- More of 1.000 recreational licensed fishing vessels
- About 3.500 licenced recreational spear fisherman



Inspection activity

- Vessel Monitoring System - VMS



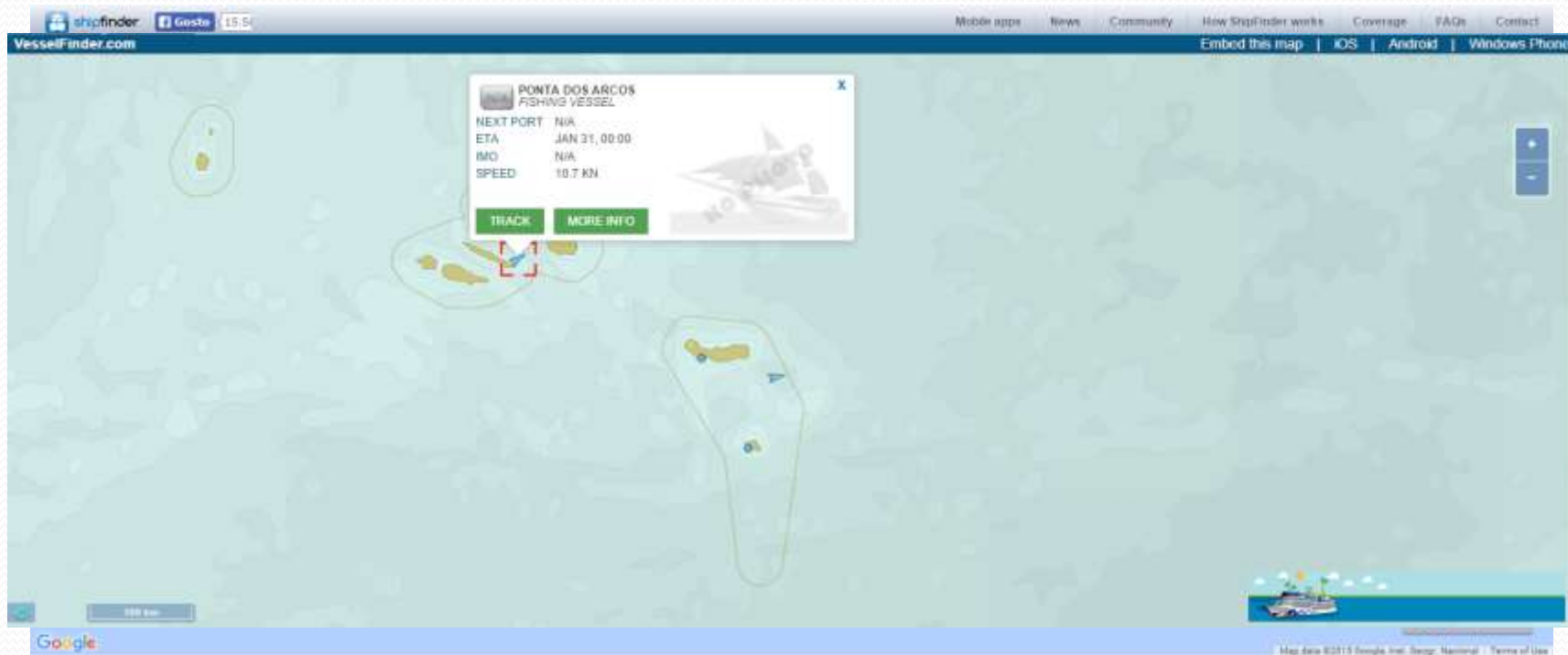
Inspection activity

- Vessel Monitoring System - VMS



Inspection activity

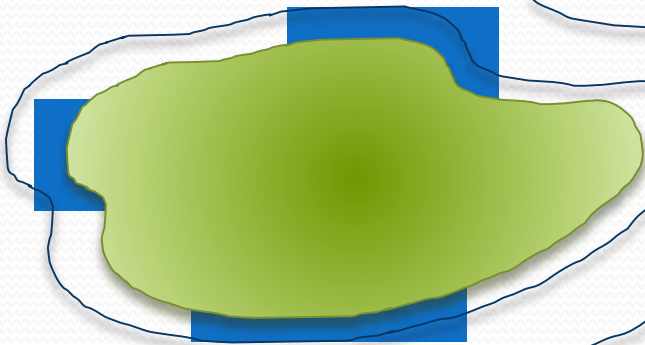
- Automatic Identification System - AIS



Spatial Planning for Fisheries Management



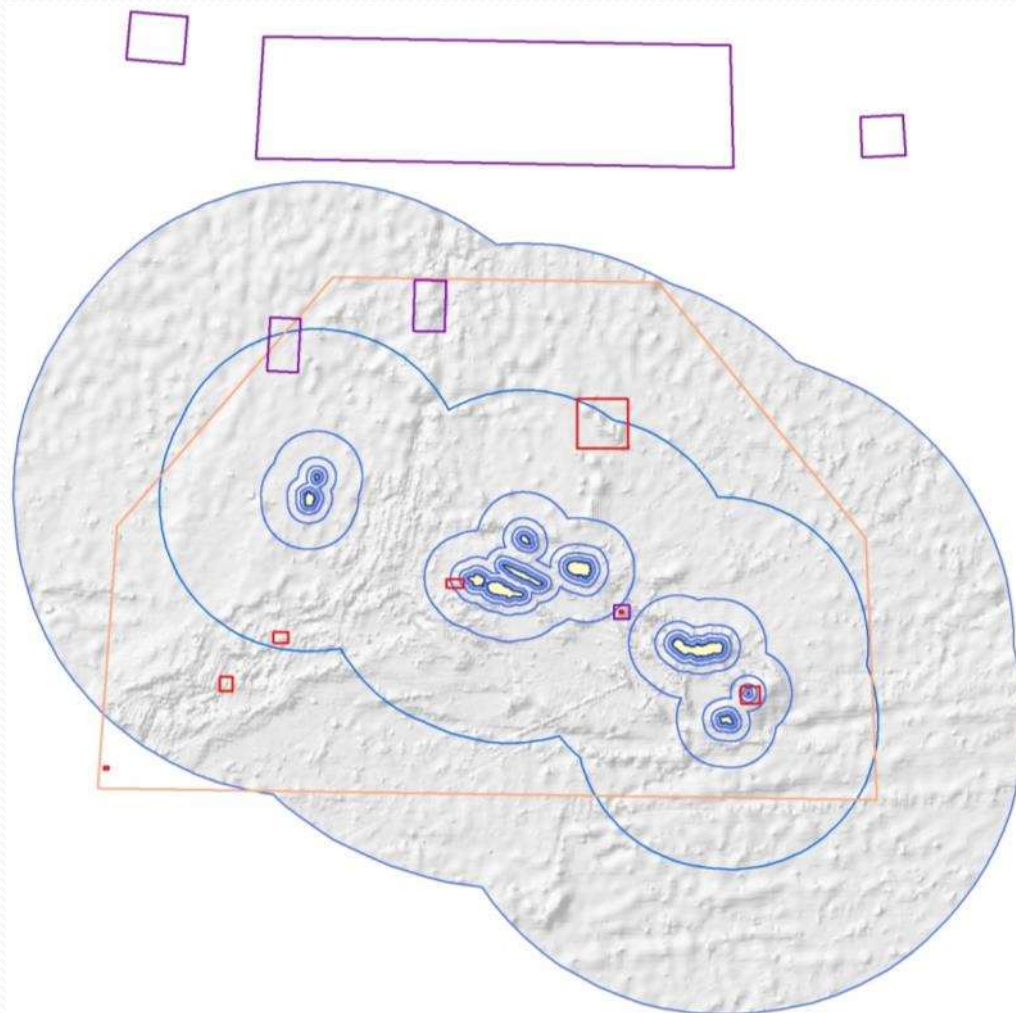
Fisheries zoning



- Costal Resources Management areas
- 1 NM – restricted to traps and costal gillnets
- 3 NM – restricted to hand lines
- 6 NM – restricted to long line except São Miguel and Terceira
- 12 NM – restricted to traps for shrimps and deep sea crustaceans for costal vessels
- 30 NM – restricted to vessels under 24 m
- 100 NM – restricted to national vessels
- 200 NM
- Trawling Prohibition Area
- Marine Protected and Reserve Areas
- Condor Bank



Fisheries zoning



- Costal Resources Management areas
- 1 NM – restricted to traps and costal gillnets
- 3 NM – restricted to hand lines
- 6 NM – restricted to long line except São Miguel and Terceira
- 12 NM – restricted to traps for shrimps and deep sea crustaceans for costal vessels
- 30 NM – restricted to vessels under 24 m
- 100 NM – restricted to national vessels
- 200 NM
- Trawling Prohibition Area
- Marine Protected and Reserve Areas
- Condor Bank



Improvements for Inspection and Control

On going



Video surveillance

- Formigas Islets
- Condor Bank
- Inshore seamounts of Santa Maria



Autonomous Aerial Vehicles

- Harbours and Nearshore
- Coastal areas <6 NM
- Offshore areas, Formigas and Condor < 50 NM
- High seas areas < 200 NM



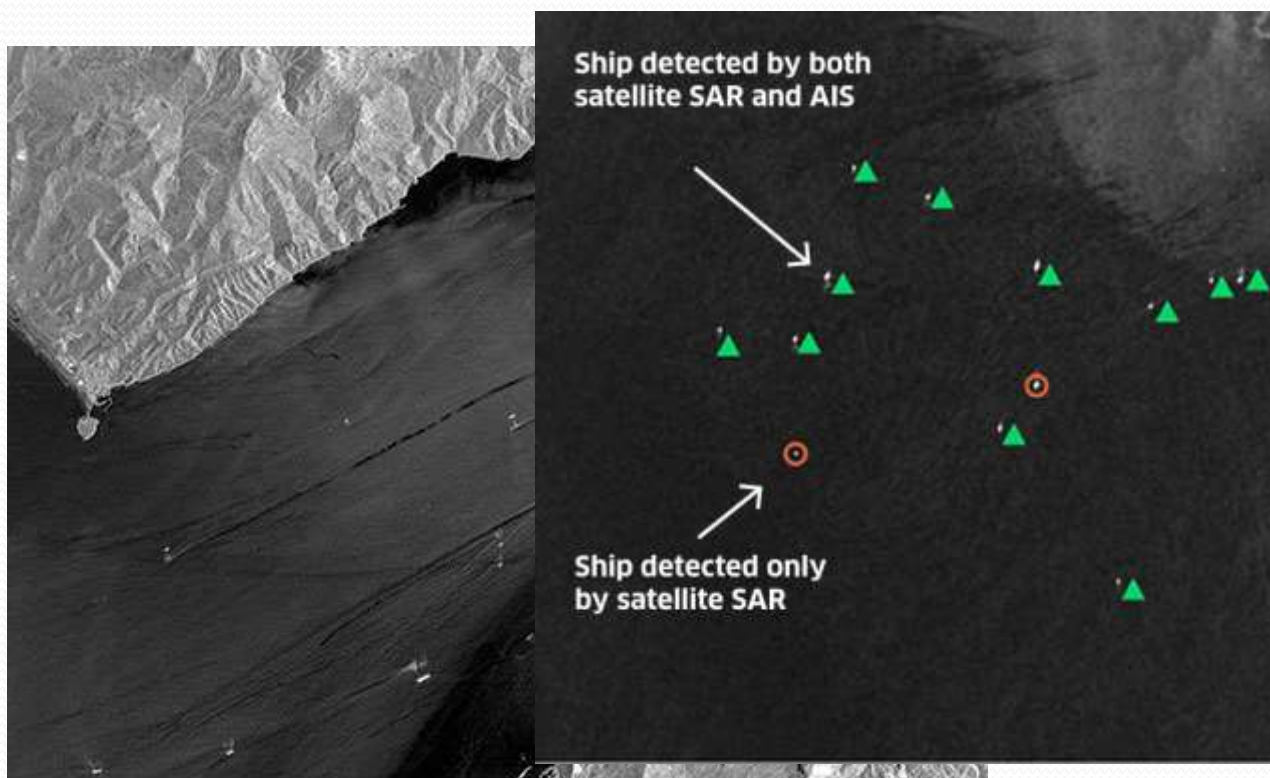
Earth Observation data

In the future



SAR Images

- Cross check of SAR information with AIS and VMS



Thank you for your attention

Inspeção Regional das Pesca

Colónia Alemã - Edifício do Relógio

9900-014 Horta

Tel. 292 202 400 | Fax: 292 240 880

@ info.irp@azores.gov.pt

<http://pescas.srmct.azores.gov.pt>

