

Challenges Maritime Domain Awareness

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OCEANS BEYOND PIRACY

a project of the One Earth Future Foundation

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Colorado, USA



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Secure Fisheries

OBP





- Piracy
 - Risk Analysis
 - Operational Response
 - Self Protection of Vessels
 - Regional Capacity Building
- IUU Fishing
 - Monitor Waters
 - Control
- Stakeholders:
 - International Maritime Organization
 - Information Sharing and Analysis Centers
 - Regional Nations
 - Flag States
 - Ship Owners/Associations
 - Vessel Masters
 - Private Security Teams

Maritime Domain Awareness

Voluntary Systems

- Automatic Identification System (AIS)
- Vessel Monitoring System (VMS)
- Long Range Identification and Tracking (LRIT)
- Reporting Schemes
- Information Sharing

Concerns

- Security of Vessels/Safety of Seafarers
- Monitor Resources
- Awareness of Threats
- Potential Targeting
- Liability

Involuntary Systems

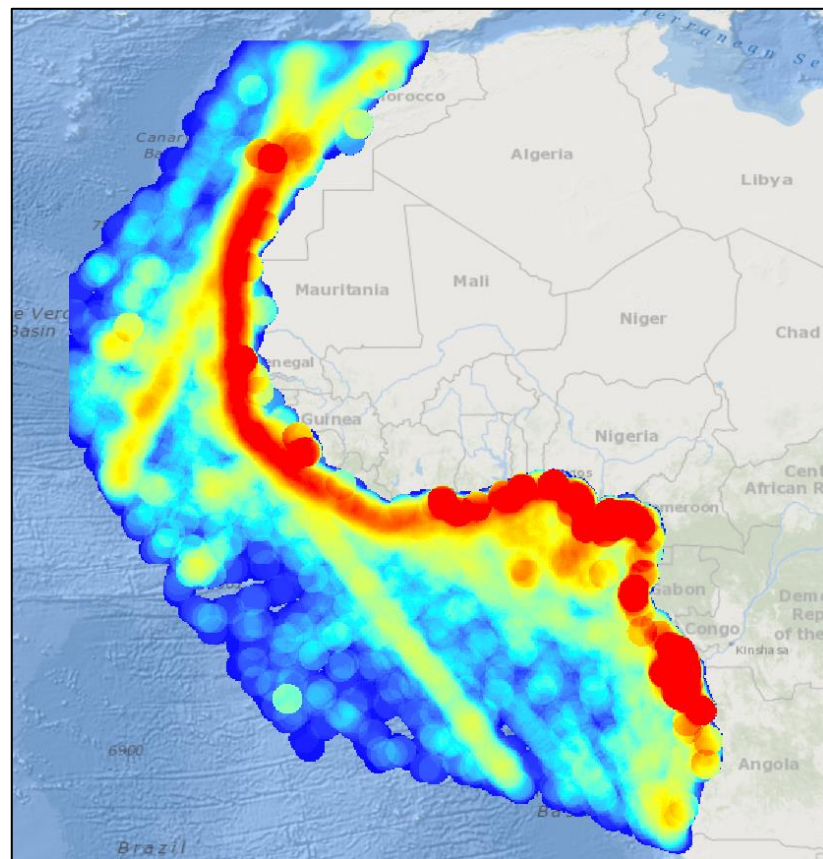
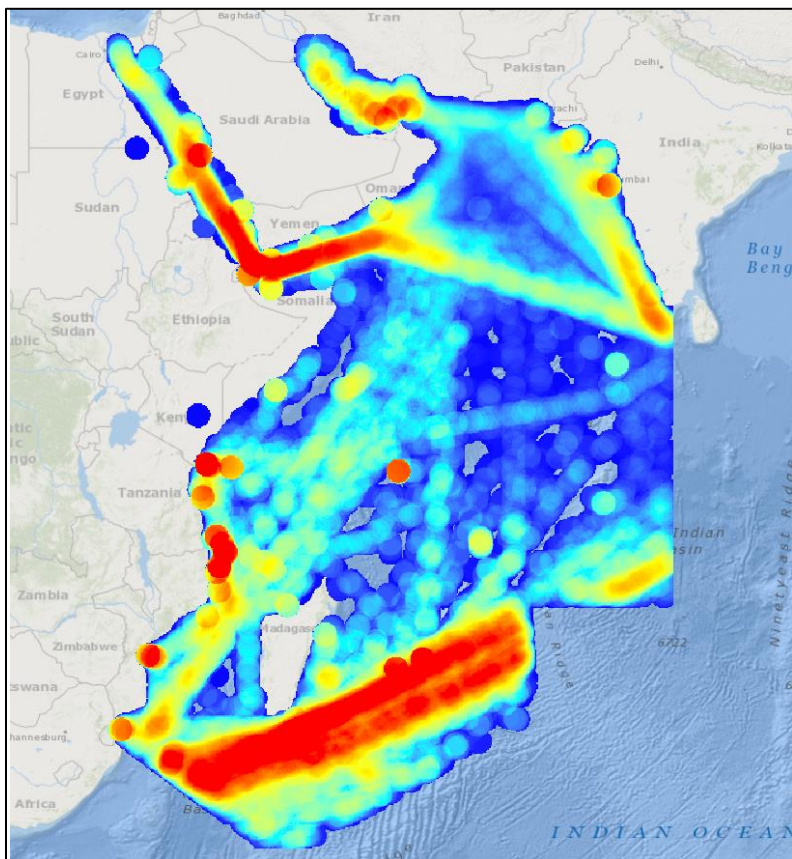
- Radar
- Vessel Patrols
- Radar Sat
- Optical Systems

Concerns

- Lack of information
- Cost
- Data Overload
- Freedom of Navigation

THE STATE OF MARITIME PIRACY 2013

AIS Observations of Shipping Traffic | East & West Africa



Goal

Reduce IUU fishing and related conflict in Somalia and throughout Africa while enhancing good governance and sustainable management of marine resources

MDA Objective

Develop a multi-stakeholder approach for the monitoring, tracking and reduction of IUU fishing in Somalia and throughout Africa, relying on technology, partnerships, and port state measures

Where to Start?

Create a Baseline that Measures Intensity of Fishing in Somalia's Potential EEZ
AIS

Cargo/Tanker ships required to broadcast

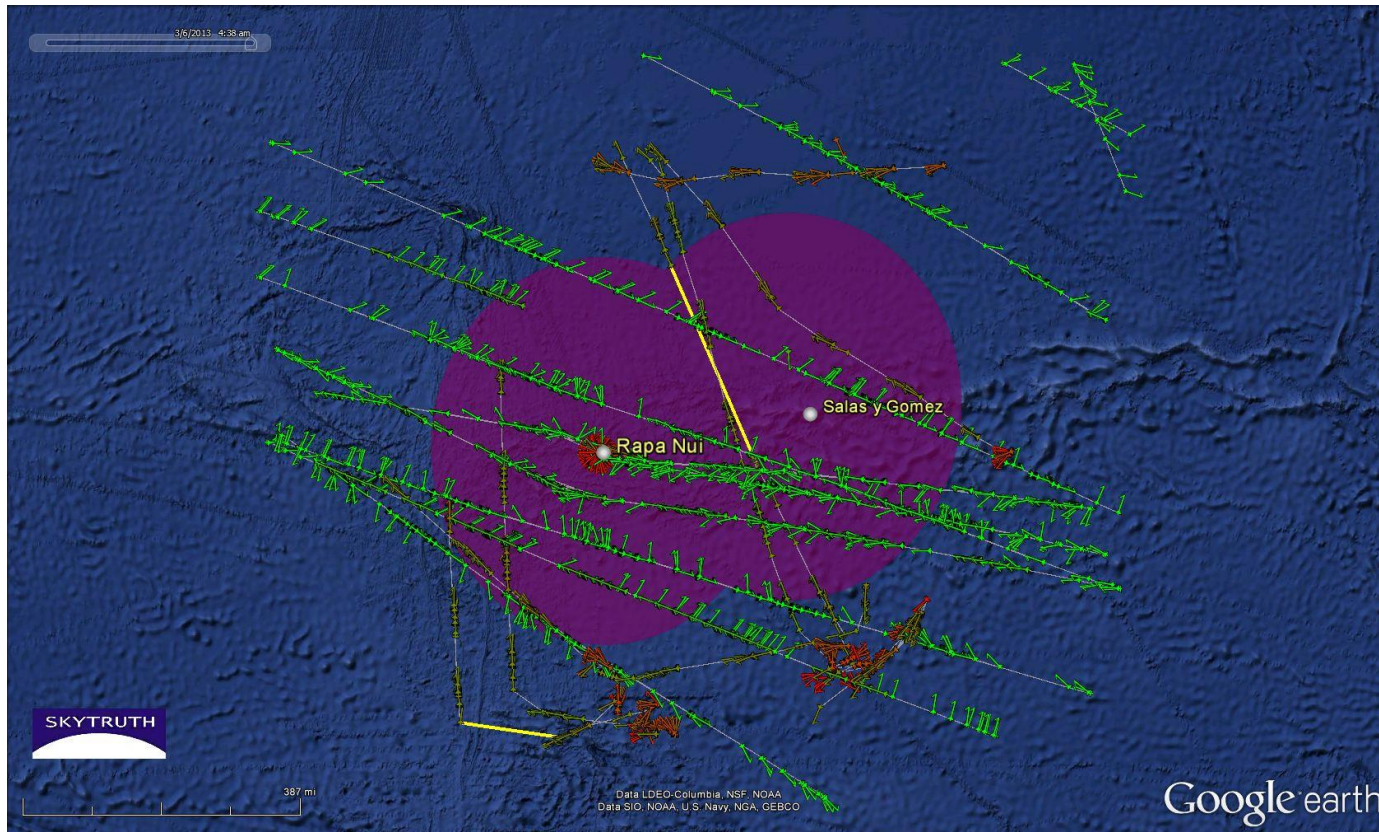
Fishing vessels not, though an increasing number are

Radar Satellite

Detection of vessels >20 meters

If > 20 meters and not broadcasting AIS, most likely a fishing vessel

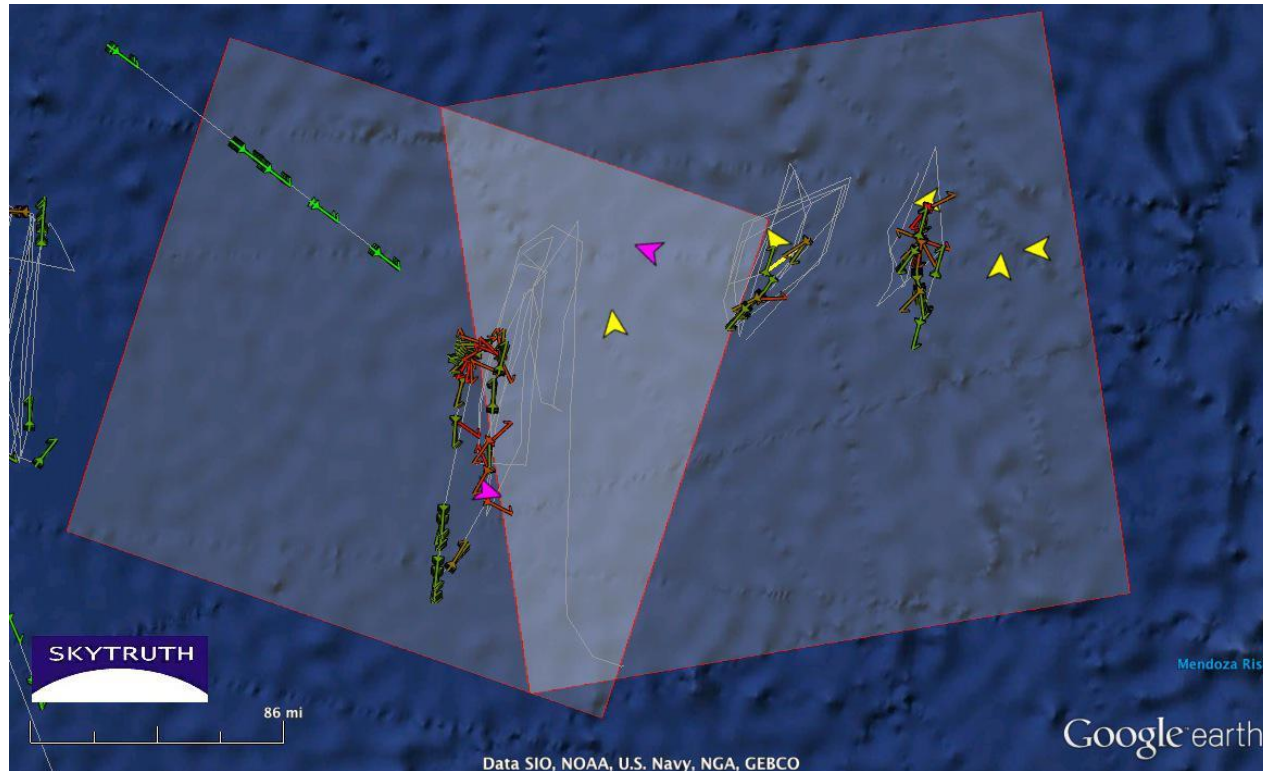
EXAMPLE OF AIS TRACKING FOR EASTER ISLAND PROVINCE USING EXACTEARTH



STRAIGHT GREEN LINES: CARGO/OIL TANKERS TRANSITING
RED LINES: FISHING VESSELS, ACTIVELY FISHING

MARCH 1 – MARCH 6, 2013

EXAMPLE OF RADARSAT-2 SCANSAR ACQUISITION FOR EASTER ISLAND PROVINCE



RESULTS: 140 EXTRAPOLATED VESSEL-DAYS OF FISHING IN EASTER ISLAND EEZ (Jan-Mar 2013). STRAIGHT **GREEN LINES**: TRANSITING / **RED LINES**: FISHING VESSELS, ACTIVELY FISHING