



# Use of Remote Satellite Technology to Uncover Risks in UK's Overseas Territories (UKOTs)

Sebastian Jennings | Senior Data Officer | MMO  
Global Marine Team

**Blue Belt Programme**

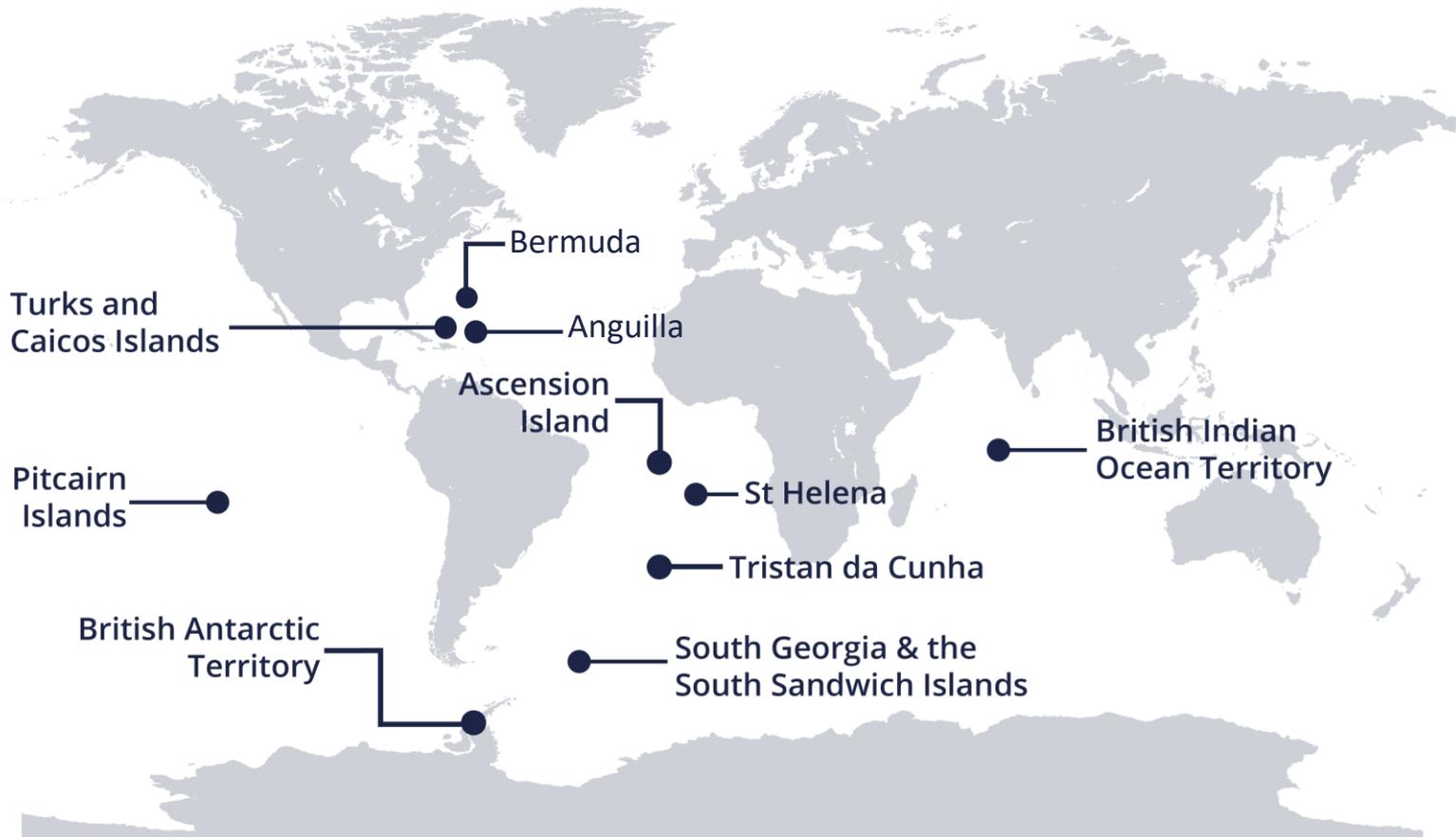


# What is the Blue Belt Programme?

- UK Government's flagship international **marine conservation programme**.
- Central to the UK Government's ambition of leading action to tackle the serious global problems of **overfishing, species extinction** and **climate change**.

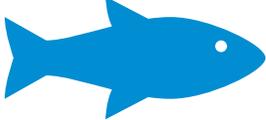


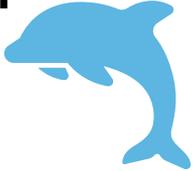
The Blue Belt and Blue Shield Programmes works closely with ten UK Overseas Territories to assist them in creating and maintaining **healthy and productive marine ecosystems**.



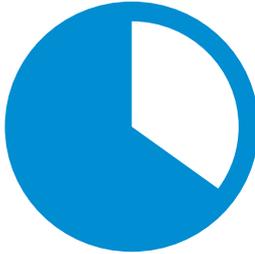
# UKOTs Snapshot

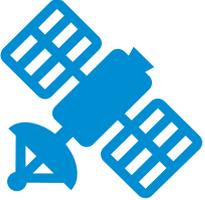
**1%** Of oceans are covered by UKOT MPAs. 

UKOTs contain some of the highest ranking **MSC-certified fisheries** in the world 

UKOTs contain **90%** of the UK's biodiversity 

The Turks and Caicos barrier reef is the **third** largest in the world 

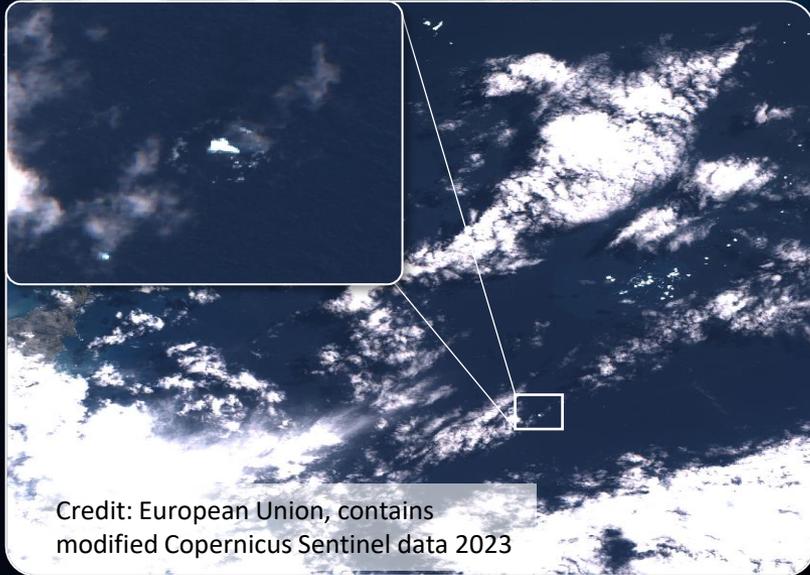
**5** of the **top 10** largest MPAs in the world are in UKOTs waters 

**> 94 million** square kilometers of SAR analysed each year over the UKOTs 

# The Challenges



Marine  
Management  
Organisation



Credit: European Union, contains modified Copernicus Sentinel data 2023



© 2023 Maxar Technologies Ltd.

- Remote islands
- Large-scale EEZs / MPAs
- Limited infrastructure
- Limited patrol capacity



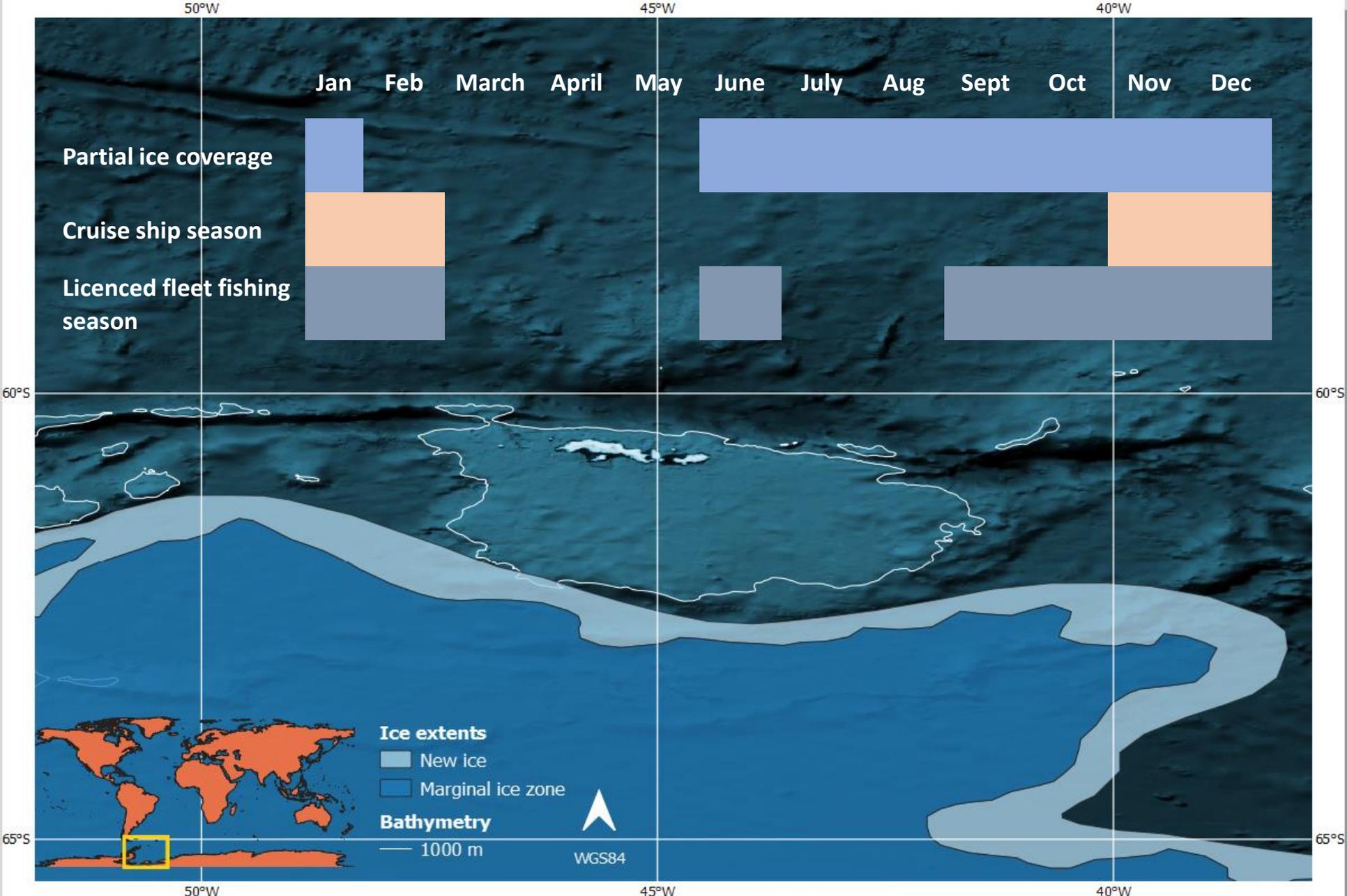
Credit: European Union, contains modified Copernicus Sentinel data 2023

## Blue Belt Programme

 UK Government

# Current Operating Set Up

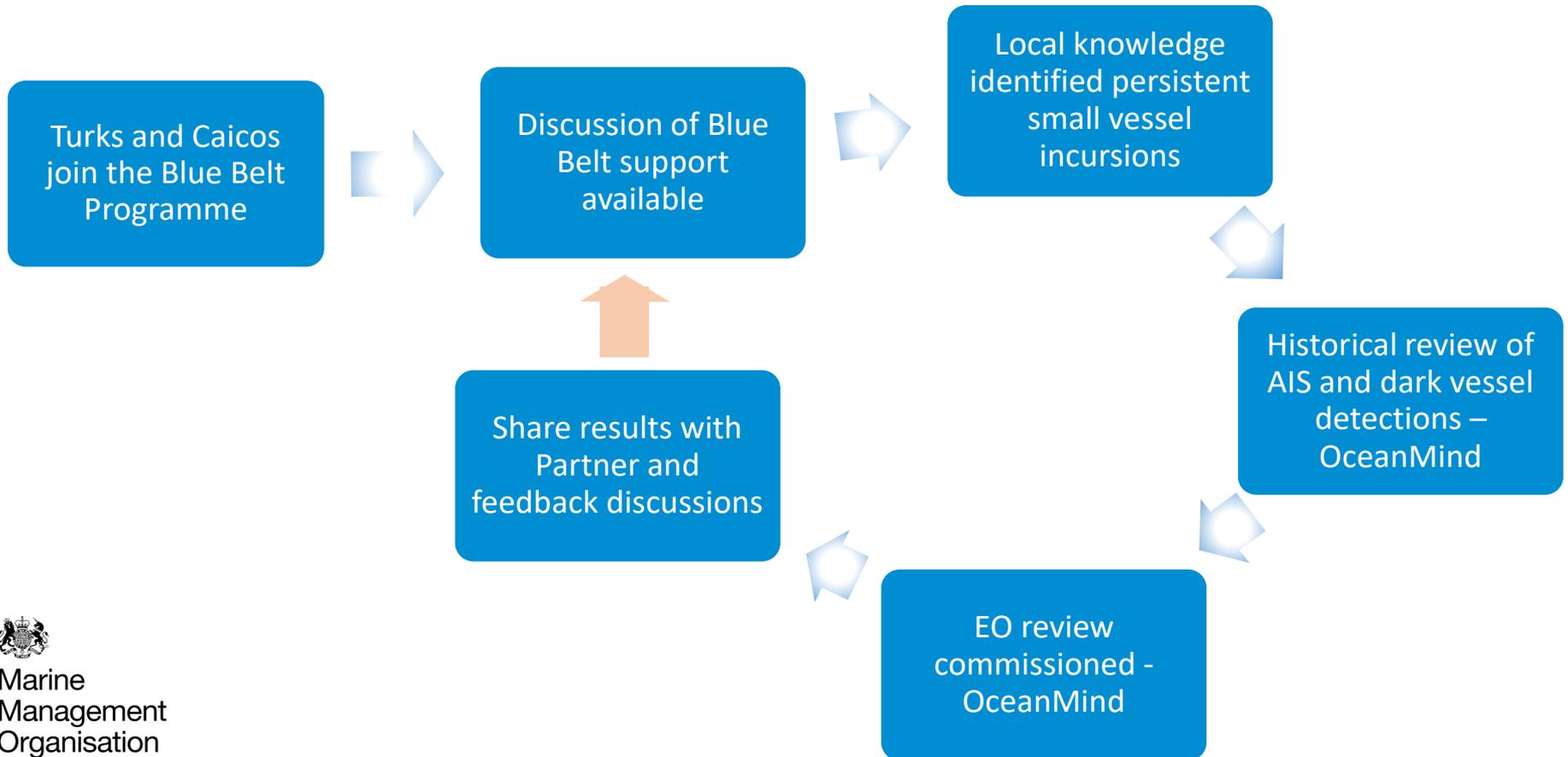




**Blue Belt Programme**

 **UK Government**

# Case Study – Turks and Caicos



Marine  
Management  
Organisation

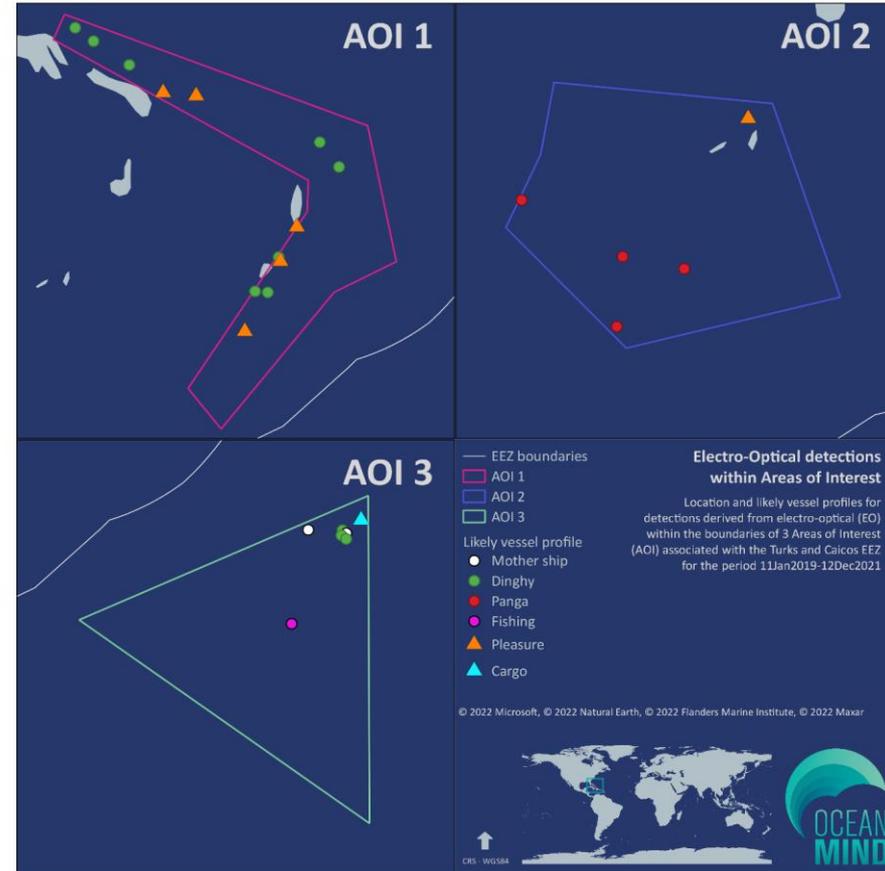
# Case Study – Turks and Caicos



## Historical review

### Key findings:

- **Low** level of fishing related AIS traffic
- Testing of SAR indicated **insufficient** resolution for reliable vessel detection
- High-resolution EO analysis of ~140k km<sup>2</sup> area identified **94** detections
- **46%** of the EO detections were identified as possible small-scale fishing vessels



Marine  
Management  
Organisation

# Case Study – Turks and Caicos



## EO review

Credit: European Union, contains modified Copernicus Sentinel data 2023

# Remote Sensing Learnings

- Increased understanding of the state of the threat
- Proof of the technology utility in this context
- Interpreting detections can be a challenge
- Remote sensing often provides only a snapshot in time
- Importance of continual partner engagement
- Potential for RF trials and extended monitoring



# Key Lessons

- EO is an effective tool to detect small vessel activity
- The need for collaboration between EO provider, intelligence experts and partners in country
- With remote sensing, but EO imagery in particular it can be challenging to deliver to partner expectations within programme budgets



# Thank you for listening



Follow @UKGovBlueBelt



Read our annual update brochure through the QR code or on gov.uk



Subscribe to our newsletter



Visit our blog & gov.uk website

