Centre for Environment
Fisheries & Aquaculture
Science

Marine
Management
Organisation

Blue Belt Stakeholder Newsletter

Winter 2018

The Blue Belt Journey: what are we trying to achieve?

The Blue Belt Programme is a four year project delivered by the MMO and Cefas in partnership with the UK Overseas Territories.

The Programme honours a government commitment to provide long term protection of over four million km^2 of marine environment, initially around the Overseas Territories of Ascension Island, St Helena, Pitcairn, British Indian Ocean Territory, British Antarctic Territory (South Orkneys), Tristan da Cunha and South Georgia & the South Sandwich Islands.

The Programme is run on behalf of the Foreign and Commonwealth Office (FCO) and the Department for Environment, Food and Rural Affairs (Defra).

The Programme has a number of overarching goals that will provide a lasting legacy. It will:

- Improve the scientific understanding of the marine environment;
- Develop and implement evidence-based, tailored marine management strategies including surveillance and enforcement; and
- Ensure management is sustainable and long term.

The UK and the UK Overseas Territories are custodians to the fifth-largest marine estate in the world. By 2020, our aim is to ensure that the Overseas

Territories are supported to ensure that they are able to sustainably manage and protect their waters, which are home to globally significant biodiversity.

Why is the delivery of the Blue Belt Programme so important?

94% of British endemic species are found within the territories. And 85% of the Critically Endangered species (for which the UK Government is responsible) are within the territories. The Programme will protect a wide range of marine life, from vast penguin colonies, seals, sharks and coral reefs. Some of these species and habitats are found nowhere else on earth.

FOCUS ON...

Delivering MPA enforcement:

a key part of the Blue Belt Programme

Addressing the problem of illegal, unreported and unregulated fishing (IUU) is a key part of the Blue Belt Programme. This involves working with the Tristan da Cunha government, the UK Government's Foreign and Commonwealth Office (FCO) and data analysis provided by Ocean Mind (a not for profit organisation of the Satellite Applications Catapult). The Programme is investigating intelligence that suggests that a number of foreign-flagged fishing vessels may undertake IUU fishing in the waters around the island of Tristan da Cunha. Detailed analysis of data undertaken by Ocean Mind, on behalf of the MMO and the FCO, has allowed us to identify a number of specific vessels who are potentially undertaking IUU fishing in waters around Tristan da Cunha.

Using a combination of Automated Identification System (AIS) and cross-referencing the data with Synthetic Aperture Radar satellite images (SAR), which creates very detailed 'radar silhouettes' the Programme is able to identify vessels who may have had their AIS transponders temporarily turned off.

This allows the Programme to see "dark vessels" (vessels who are potentially trying to hide their individual identifiers) whose activities may warrant further investigation.

We know that vessels who are involved in IUU fishing sometimes temporarily switch their AIS off whilst undertaking certain illegal activities. The vessels may then switch their AIS back on again as they navigate through high-traffic waters or into a busy port.

However, by cross-referencing various data sources, the Programme has been able to identify vessels that have been exhibiting suspicious behaviours. Craig McGarvey, Blue Belt Project Director for the MMO said: "IUU fishing is a threat globally to some of our most ecologically important waters. It also threatens the businesses of the legitimate, sustainable fishing industry.

"We are working closely with both the Flag States and the Port States that are used by the vessels under investigation.

"Our current investigations have identified that a number of the vessels operating in and around the waters around Tristan da Cunha often sail to and from ports in Cape Town, South Africa among others. We are now working with stakeholders to discuss enforcement options."

St. Helena:

The Blue Belt Programme has been working in partnership with St Helena Government (SHG) and experts at Stanford University to analyse recent tuna tagging data. This includes conventional and satellite tagging data for yellowfin tuna and the analyses show extended residency of yellowfin, foraging locations and depth and provide data on growth rates. An enhanced tuna tagging programme has been agreed and will start in early 2018. The Programme is also working with SHG to undertake tagging and biological studies of inshore fishery species, such as grouper; and habitat mapping work.

The Blue Belt Programme has also been working with the St Helena Government and a flag state, regarding an identified incursion by a fishing vessel into the St Helena Exclusive Economic Zone (EEZ).

Ascension Island:

The Blue Belt Programme met with the new staff from the Ascension Island administration in the UK to brief them on the Programme and on the support that Cefas and MMO can provide, prior to them taking up their roles on the Island. The Programme has also been undertaking preliminary work on a water quality and management review.

Tristan da Cunha:

In December, in partnership with Tristan Government, we undertook a 10-day longline survey on MV *Edinburgh* in the Tristan da Cunha EEZ. The survey will help determine the distribution and abundance of the blue-nose fish. It is the first step to ensuring the sustainability of the blue-nose fishery industry. The Blue Belt Programme was represented by Dr Vladimir Laptikhovsky, Fisheries Assessment Scientist, who led the survey.

The Blue Belt Programme will be meeting the local communities on Tristan da Cunha and St Helena in January 2018. Discussions will include how the Programme will benefit the community, and will also provide the community with an opportunity to ask questions about how aspects of the Programme are being implemented.

The Blue Belt Programme is currently working with the Maritime and Coastguard Agency (MCA) and United Kingdom Hydrographic Office (UKHO) around vessel management and marine emergency response options in the vicinity of Tristan da Cunha.

The Programme is also liaising with the Tristan da Cunha administration around the legislative arrangements to keep international shipping traffic away from the islands to mitigate the risk of maritime incidents, learning the lessons from the grounding of the Oliva in 2011.

Cross jurisdictional update:

The Blue Belt Programme continues to work on identifying and delivering the OTs' needs, via the Country Plans. These have been developed in conjunction with the individual OTs.

The new Blue Belt deep-water camera system has been tested, including sea-trials in readiness for survey deployment in SGSSI, which is targeted for April 2018.

The Programme is also in discussions with Pew and Bertarelli about a possible workshop to consider how existing technologies can support the monitoring and enforcement of the Blue Belt in the overseas territories. The Programme is also working with the Natural Environment Research Council (NERC) to discuss how to take forward the innovations programme.

The Programme is also in discussions regarding how to utilise data from the Defra Earth Observation programme to inform the Blue Belt programme's work. The Blue Belt Programme is looking at a two-phase approach to the work, which will potentially incorporate Sentinel-1 data into our satellite surveillance programme.

Innovations update:

The Blue Belt Programme has met with stakeholders Fulcrum Maritime Systems Limited (FMS) and Sentinel Marine to discuss our satellite surveillance work around the Overseas Territories.

We have also been in contact with a number of Member States in relation to the recommendations in the recent report which one of our partners, Catapult, compiled for us, on Vessel Monitoring System (VMS) and logbook data.

The Programme is also undertaking a review of available technologies for monitoring and enforcement, as well as undertaking an updated literature review to review the effectiveness of satellite surveillance and specifically sentinel satellite data.

The Programme is undertaking a policy analysis to see how our Blue Belt design, designation and enforcement work compares with other similar designations around the world. This will allow us to both benchmark our work and identify emerging areas of best practice.

What is the Blue Belt Intelligence Hub?

In December 2017, the Blue Belt Programme launched the Intelligence Hub. The central concept underpinning the OT Intel Hub is that it acts as a single repository for all OT intelligence, where it can be stored, analysed, developed as well as subsequent actions and research disseminated to the relevant partners. The Hub is located within the National Maritime Information Centre (NMIC) in Portsmouth. NMIC is a multi-agency centre, with representatives from a wide range of government departments with a maritime focus (including the Royal Navy and the Maritime Coastguard Agency). This means the Programme is able to tap into a wide range of monitoring systems, contacts and potential intelligence sources.

In addition to logging, collating, analysing and cross-referencing intelligence provided by the Overseas Territories, the Programme is proactively obtaining information, both through open source research and working with academic and third party institutions as well as developing relationships with other organisations. For example, our work will include monitoring all OT EFZs remotely as a matter of routine using the NMIC surveillance systems. The Programme will also be in regular contact with a wide range of potential sources of information, including both pan-jurisdictional governmental and NGO organisations.

National Maritime Information Centre

Pitcairn Islands:

The Blue Belt Programme met with the project director of the Pew-Bertarelli Ocean Legacy initiative and the Programme Manager of the Bertarelli Programme in Marine Science. The meeting was part of a regular series of bilateral meetings between the Blue Belt Programme and stakeholders.

British Indian Ocean Territory:

As the project moves forward, the Blue Belt Programme is developing a surveillance, compliance & enforcement strategy to improve the protection of the waters around the territory. The Programme is also assessing and developing a pollution mitigation strategy, and undertaking baseline data measurements of current biodiversity around the islands.

South Georgia & the South Sandwich Islands (SGSSI):

The SGSSI government has commenced its 5-Year Review of its Sustainable Use Marine Protected Area (MPA). The review began in November 2017, and commenced with a workshop at the British Antarctic Survey in Cambridge. A number of stakeholders were represented from the scientific community, as well as representatives from the fishing industry, the tourist industry and non-governmental organisations. The group has appointed an independent reviewer (Dr Alistair Dunn, MPI New Zealand). The workshop was chaired by Dr Colin Clubbe, Head of Conservation Science at the Royal Botanic Gardens, Kew.