Newsletter - December 2011

REPCET repérage en temps-réel des cétacés

Welcome to the first edition of the quarterly newsletter on collisions between vessels and whales, and the REPCET system.


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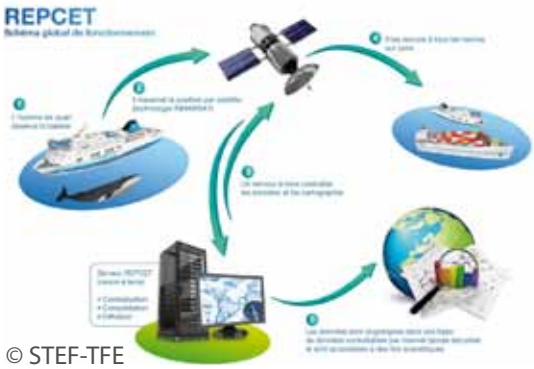
REPCET, an integrated technology dedicated to cetacean conservation, designed for shipowners



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Collisions between vessels and large cetaceans are not only a significant threat to whale populations around the world, but also to the safety of the vessels and their passengers. In the northwestern Mediterranean Sea, 16-20% of whales found dead were killed by a collision, and many living individuals bear scars from these accidents. Collisions are thus considered to be one of the main causes of non-natural mortality in fin and sperm whales in this region.

In response to this problem, researchers, engineers and representatives of maritime transport companies have joined forces to develop an innovative tool aiming to limit the risk of collisions. Approved by the French marine competitiveness cluster Pôle Mer PACA, and developed within the framework of the PELAGOS Sanctuary for marine mammals and the ACCOBAMS agreement, REPCET (Real-time Plotting of CETaceans) is a collaborative information system. This tool allows commercial vessels real-time access to the positions of whales last seen on their navigation routes. Therefore, watchkeeping personnel can increase vigilance for visual lookout, and be on the alert to detect and if necessary avoid the cetacean.

The concept is simple and is based on the following: every sighting of large cetaceans by watchkeeping personnel on board a vessel equipped with REPCET is transmitted by satellite in real-time to a server located on land. The server then centralises the data and sends out an alert to all equipped vessels likely to be affected. The alerts are displayed cartographically on a dedicated screen on board.

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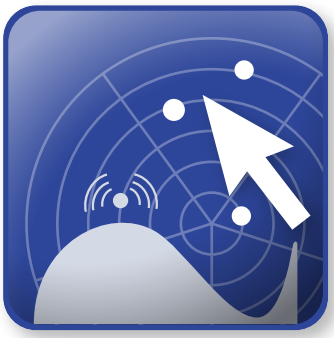
The collaborative nature of the system means it relies on the density of commercial maritime traffic. Other vessels are also welcome to contribute voluntarily to the system by reporting cetacean sightings, especially military and scientific research vessels, whale watching operators, and sailing vessels. REPCET is designed to be expanded to any regions where such collisions are an issue.

The system consists of a touchscreen computer equipped with REPCET software, and depending on the ship's configuration, an antenna module (Iridium link and GPS).



Test REPCET
sur le site
www.repcet.com

Vessels currently equipped

REPCET is a collaborative system that relies on the participation and commitment of maritime companies which implement the system on vessels operating in zones of high risk of collision. This commitment, undertaken by many of them, transcends traditional competitive outlooks, to achieve a common and shared goal: the conservation of the environment. All those involved in the deployment of REPCET would like to express their gratitude to these shipowners. At this point in time, seven vessels are equipped with REPCET in the PELAGOS Sanctuary.

The operational version of the REPCET system, complete with touchscreen and marinised communication equipment, is currently being deployed. It is installed on board the following vessels :

- The Girolata (La Méridionale)
- The Kalliste (La Méridionale)
- The Scandola (La Méridionale), pending replacement by the Piana
- The Monte d'Oro (SNCM)
- The Tamory (private sailing vessel based in Monaco used for research expeditions by Souffleurs d'Ecume).

Two other vessels are still equipped with a functional experimental version which should soon be replaced by the operational version (France Telecom Marine's Raymond Croze, and Costa Croisière's Pacifica).

La Méridionale has agreed to deploy REPCET on its entire fleet, and already has three vessels equipped. The SNCM has also agreed to deploy REPCET, starting with a single vessel. These deployments were made possible through the support of the Pelagos Sanctuary which sponsors a research programme conducted by the GIS3M (scientific interest group for marine mammals of the Mediterranean)

The CROSSMED has also been in possession of REPCET since 2010, which has meant that a large number of alerts reported by pleasure boaters are able to be transmitted, after verification of the sightings following a strict protocol.

Discussions are underway with other shipowners in order to equip around twenty vessels operating in the northwestern Mediterranean Sea by summer 2012.

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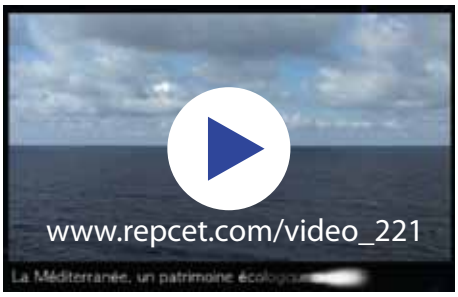
REPCET sets sail

The REPCET system has been in development since 2007, and is co-financed by the French Fond Unique Interministériel (Single Interministerial Fund, France), CHRISAR Software Technologies, and the association Souffleurs d'Ecume. After two years of testing an experimental version installed on board four vessels and at CROSSMED (Regional Operational Centre for Monitoring and Rescue in the Mediterranean), the commercial version is now available. It is available to shipowners by subscription (around €350 per month, per vessel, depending on its configuration). This subscription, contracted with CHRISAR Software Technologies, covers the following:

- Maintenance and depreciation of the hardware,
- Administration costs necessary to run the system,
- Technical support,
- Expenses related to satellite communications,
- Deployment of the system,
- Research, development, new releases and updates of the system.



Research, development, new releases and updates of the system. hout sound, focusing on the collisions issue and promoting the involvement of shipowners, is supplied with the subscription for passengers to view on board (example from the company La Mériodionale).

Are you a shipowner and would like your vessels to subscribe? Contact us to join the network of companies already subscribing to REPCET.

Focus: La Méridionale

La Méridionale is one of the leading maritime companies involved in reducing the risks of collisions in the area between Corsica and the continent. Every year for the last five years, it has trained 6 to 8 of its officers in identification of large cetaceans and limitation of the risks of collisions. After its active participation in the tests, La Méridionale has agreed to deploy the REPCET system on board all its vessels starting from early summer 2011, with an initial commitment of two years. Captain Olivier Varin, Deputy Executive Director Operations, recounts:

« La Méridionale has been invited to the meetings of the PELAGOS Sanctuary's "human activities" working group since 2005. It was there that I met Pascal Mayol from Souffleurs d'Ecume. He asked us to become involved in protecting cetaceans, and furthermore recommended that we calculate our carbon footprint. La Méridionale also decided to obtain ISO 14001 certification (in environmental management), which it did in 2009.

La Méridionale, whose three vessels operate in the PELAGOS Sanctuary all year round, agreed to reduce its impact on the planet. Amongst other things, the company reduced its fuel consumption by 7% over three years, thus reducing greenhouse gas production in the Sanctuary. Since 2006, it has sent 46 officers to attend the training course organised by Souffleurs d'Ecume, with a view to avoiding collisions with cetaceans. It participated in the REPCET tests, installing the system on one of its vessels, the Scandola, in June 2009.

On the 28th of June 2011, La Méridionale signed a two year contract with Chrisar Software Technologies, to have REPCET installed on all three of its vessels. It is thus the first shipowner to have its entire fleet equipped with REPCET."

Press release: www.stef-tfe.fr/notre-groupe/actuArticlesData/la-meridionale-sequipe-du-systeme-repcet

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Scientific projects 2011

Providing much more than just geographical information on large cetacean sightings, REPCET calculates and displays a risk zone, where there is a high likelihood of the animal being present. A literature review on the fin whale (Balaenoptera physalus) and the sperm whale (Physeter macrocephalus) in the Mediterranean has provided a methodology for modelling risk zones. In order to test and refine this methodology (size of the risk zones, their rate of expansion and diminution over time), a scientific study was carried out in July 2011 on board the sailing vessel the Tamory in order to monitor spatio-temporal movements of large cetaceans.

We would like to sincerely thank everyone who contributed to the successful completion of the study, especially Didier Rubliolo and Kate Powers (shipowners of the Tamory and the founders of Stars'N'Bars), as well as the captain (Gilles Lebourg) and his crew.

Studies are being conducted by the GIS3M (scientific interest group for marine mammals of the Mediterranean), to assess the scientific value of the data collected through the REPCET system (cetacean distribution data). As a contribution to this work, the French sector of the PELAGOS Sanctuary provides funding for REPCET subscriptions on board two vessels.

Sponsors

- **Catherine Chabaud and Luc Coquelin, two sailing champions sponsor REPCET**

The Fondation pour la Nature et l'Homme (FNH, Foundation for Nature and Man), who has supported REPCET since its very beginnings, has helped create ties with two sailing champions: Catherine Chabaud (first female sailor to race solo, non-stop, around the world) and Luc Coquelin (2nd place in the Route du Rhum 2010, Rhum class); both support REPCET. . Maxime André, project manager at FNH, explains how and why this sponsorship came to be: "These ties were created following several encounters with Catherine Chabaud at steering committees of the Grenelle de la mer (France's Environment Round Table), and with Luc Coquelin through an association supported by the Foundation. From these exchanges, a twofold objective was set: firstly, to support and raise awareness of this cetacean detection system by means of sponsors well-known in the maritime world, who are involved in preserving marine biodiversity. The second objective aims to identify other national programmes which may complement REPCET, and where appropriate to create links between these programmes."

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- **Monaco Radio and Naya Communication**

  To raise public awareness on collisions and REPCET, VHF broadcasts have been made throughout the summer by Monaco Radio, in partnership with Naya communication.

- **Partnership with WWF Italy**

  As part of its Mediterranean biodiversity programme, WWF Italy supports REPCET in its encouragement of Costa Croisère to equip its fleet.

- **REPCET partners**

  Development of REPCET was made possible thanks to the financial, logistic, scientific and moral support of many partners.

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