



Sargassum monitored from space: A regional solution for the sargassum problem

Press release

The Caribbean region has suffered intensely from the sargassum crisis. Economists estimate the cost of sargassum clean-up efforts at 120 million USD in 2018 alone, and fewer tourists were recorded in 2018 on Mexico's Caribbean coast. Sargassum seaweed know no borders, and no one knows where sargassum will strike next. Faced with the wide-scale negative economic impact and public health risk, is it time for Caribbean nations to join forces and adopt a regional approach? CLS, expert in Earth Observation and satellite oceanography, has developed an operational capability to detect sargassum and forecast their drift using optical and radar satellite sensors, covering the entire Caribbean and Gulf of Mexico regions. This reliable satellite-based service, developed with the support of the European Space Agency, has been validated with a group of 40+ local users in 2018 and today is used by Météo France in the French Antilles.



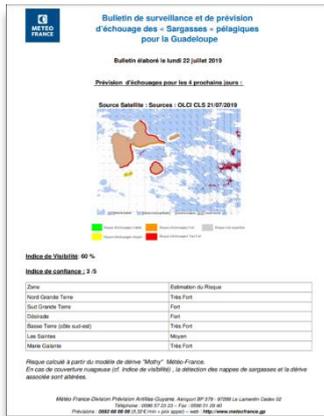
A space-based approach to sargassum management

Nearly 10 years ago, CLS began working on an operational solution to the sargassum problem using optical and radar satellite sensors to detect sargassum and predict their drift. As the crisis has deepened in the Caribbean, CLS has perfected its technology and is now able to provide an operational service backed up with analysts based on a unique combination of Earth Observation satellite data from 6 optical instruments and 2 synthetic aperture radar (SAR) instruments, to see through

cloud cover and at night.

Starting in June 2019, Météo France chose CLS and its partners, Nova Blue Environment & I-SEA, to produce weekly sargassum bulletins for the French government based on the best quality satellite detection product available, developed by CLS.

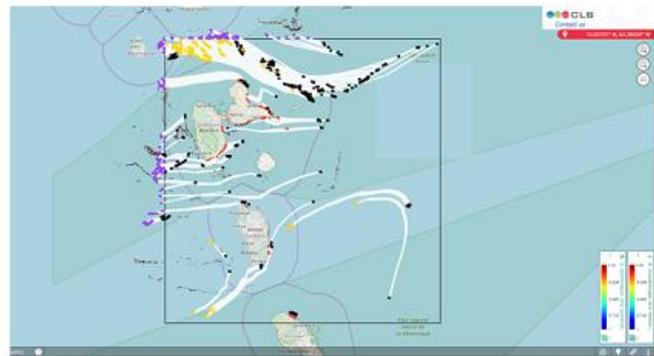
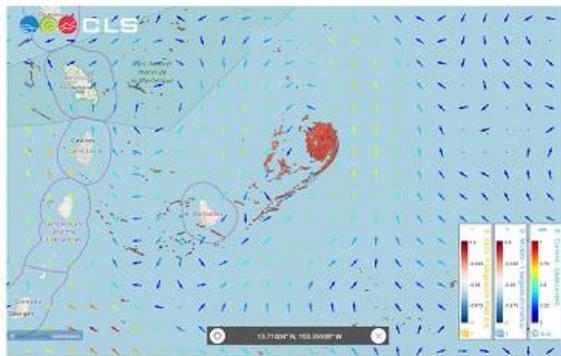
Météo France entrusted CLS with the sargassum detection for its high level of expertise and its robust operational capabilities to provide Météo-France with sargassum situation for the French Antilles.



“The daily sargassum raft detections provided by CLS are integrated into Météo France’s drift model, making it possible for forecasters to predict high risk areas in a regular bulletin provided to local authorities.” explains Philippe Palany project manager for Météo France French West-Indies and Guiana. “The fact that we can **activate radar satellite detection in case of heavy cloud cover is a real plus**. These reliable bulletins mean a lot to authorities in Guadeloupe and Martinique, who only have **48 hours to remove sargassum from beaches before they begin to decompose**. Knowing where the sargassum mats will land ahead of time is crucial to their clean-up efforts.”

The bulletins produced with Météo France will be available to the public on the DEAL websites.

The 2019 season was one of the worst on record for the Caribbean, in terms of sargassum stranding. Reliable operational forecasts will contribute greatly to mitigation efforts and support innovative clean-up efforts on a regional scale.



CLS’s sargassum detection and monitoring tool, SAMTool, is a scalable solution that is available through a secure web portal, without any local software installation. The screenshot on the left represents daily sargassum detections. On the right, yellow, black and red dots represent probable drift locations of Sargassum mats up to five days ahead.



About CLS

CLS, a subsidiary of CNES, ARDIAN, and IFREMER, is a global company that has provided cutting-edge Earth observation and monitoring solutions since 1986. Its mission is to deploy innovative space-based solutions to understand and protect our planet and manage its resources sustainably. CLS employs 720 people at its headquarters in Toulouse, France and its 25 other sites around the world. The company works in five strategic areas: sustainable fisheries management, environmental and climate monitoring, maritime surveillance, fleet management, and energy & mining.

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