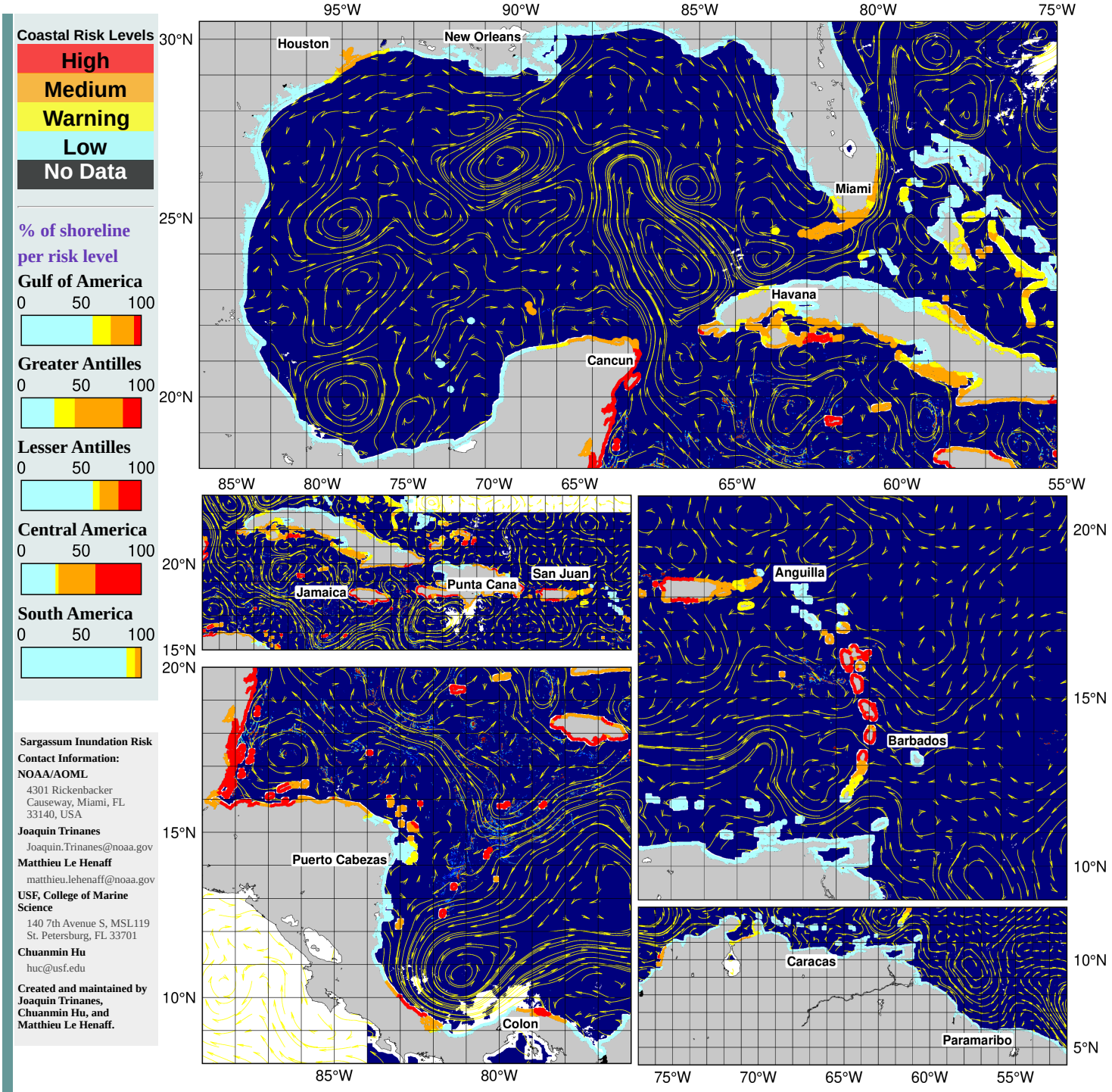
Daily Sargassum Inundation Risk (SIR v1.5)

By the National Oceanic and Atmospheric Administration (NOAA), and the University of South Florida (USF)

Status: Oct 29, 2026

Since 2011, large amounts of Sargassum is a recurrent problem in the Caribbean Sea, in the Gulf of America and tropical Atlantic. These events can cause significant economic, environmental and public health harm. These Sargassum Inundation Risk (SIR) fields provide an overview of the risk of sargassum coastal inundation in the Caribbean and Gulf of America regions. Using as core inputs the AFAI (Alternative Floating Algae Index) fields generated by the University of South Florida (USF), the algorithm analyses the AFAI values in the neighborhood (50-100 km) of each coastal pixel and, computing the difference between those values and a multiday baseline, classifies the risk into four categories: low (blue), warning (yellow), medium (orange) and high (red). In black are areas with not enough data. The vectors in the images represent the geostrophic currents. SIR is the result of the collaboration between the Atlantic Oceanographic and Meteorological Laboratory (NOAA/AOML), NOAA/CoastWatch/OceanWatch, and USF. The methodology to compute these fields is under development and, therefore, these fields are experimental and to be used as a reference and for research purposes only.



Sargassum Inundation Risk

Contact Information:

NOAA/AOML

4301 Rickenbacker Causeway, Miami, FL 33140, USA

Joaquin Trinanes

Joaquin.Trinanes@noaa.gov

Matthieu Le Henaff

matthieu.lehenaff@noaa.gov

USF, College of Marine Science

140 7th Avenue S, MSL119 St. Petersburg, FL 33701

Chuanmin Hu

huc@usf.edu

Created and maintained by Joaquin Trinanes, Chuanmin Hu, and Matthieu Le Henaff.

References: [USF Sargassum Watch System] [Atlantic OceanWatch]

Disclaimer: This is an experimental product and still subject to validation by NOAA/AOML, NOAA/CoastWatch/OceanWatch, and USF.