

# OCEAN OPTICS XXIV

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<https://oceanopticsconference.org>

Wednesday, October 10

Poster Session 3

16:00–18:00

## Poster 191

### EARLY RESULTS FROM AUTONOMOUS OBSERVATIONS DURING EXPORTS 2018

The goal of the NASA EXPORTS project (Export Processes in the Ocean from RemoTe Sensing) is to develop a predictive understanding of the export and fate of carbon fixed in the euphotic zone, linking satellite remote sensing of the ocean surface to carbon production and cycling. In late summer 2018 a multi-platform field campaign is to be initiated at the Canadian Weather Station PAPA, with two ships for a month-long cruise and four autonomous vehicles (AUVs) including a glider, Lagrangian float, and two BioArgo floats providing persistence beyond the cruises. All AUVs are instrumented with T, S, O<sub>2</sub>, chlorophyll fluorescence, and optical backscattering; additionally, each has unique sensors including an ADCP for zooplankton, transmissometer operating as a sediment trap, radiometers, pH, CDOM, and nitrate. The Lagrangian float will drift below the base of the euphotic zone, acting as a target for studies to be carried out by the Process Studies ship. The glider profiles to 1000 m, following the float and providing a larger spatial context for the float. Together they will qualitatively identify export pathways and quantitatively assess export fluxes. The BioArgo floats will quantify seasonal cycles and annual export of biogenic carbon pools over multiple years. Early results are presented here.

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