

System/Environment	Program/Sensor	Validation Data	Locale	Processing Level(s)	Spatial/Temporal scales	Point of Contact
coral reefs	CORAL/PRISM	remote-sensing reflectance in-water IOPs benthic cover benthic community metabolism	GBR, Hawaii, Guam/Marianas, Palau, Florida (no val)	at-sensor radiance atmospherically corrected		E. Hochberg
kelp	HyspIRI Prep/AVIRIS Classic	giant kelp canopy area (derived from other remote sensing datasets) canopy biomass Chl:C ratios	Santa Barbara, California	at-sensor radiance atmospherically corrected	Seasonal AVIRIS flights conducted in 2013, 2014, and 2015. Annual flights conducted each summer from 2016-2018. Seasonal Landsat-derived canopy biomass estimates Monthly in situ canopy biomass measurements from 2005-2019 Monthly in situ Chl:C measurements from 2016-2018	K. Cavanaugh
seagrass	PRISM	Rrs, Seagrass Density/LAI, Benthic Reflectance	Florida Bay, Elkhorn Slough	at-sensor radiance atmospherically corrected	~1 m spatial	Heidi Dierssen
harmful algae blooms	HyspIRI Prep/AVIRIS Classic		Monterey			R. Kudela
coral reefs	CORAL/Ecolight	extensive radiative transfer simulations	N/A	N/A		
coral reefs	CORAL/Satlantic	in-water remote sensing reflectance benthic characterization	GBR, Hawaii, Guam, Palau	N/A		E. Hochberg
harmful algae blooms	NOAA-GLERL HABs monitoring Resonan Pika II Aerial flights 240 bands from 400-900 nm	ACS and BB9 and CTD Fluoroprobe Classifications Turbidity, TSM, VSM CHL, PC, CDOM Microcystin, Biovolume	Great Lakes W.Lake Erie Saginaw Bay, LH	reflectance calibration Atmospheric corrected	200 km/flight 20x per year 2017 - 2018	A. Vander Woude T. Johengen
water quality	HyspIRI (AVIRIS-Classic)	Remote sensing reflectance in-water IOPs water constituent concentrations	San Francisco Bay	at-sensor radiance atmospherically corrected	seasonal data sets drought conditions	S. Ackleson
coastal scenarios	NRL/spectral library Hydrolight w/inelastic scatter Water column constituents Bottom depth Benthic cover	Hydrolight parameterizations Benthic reflectance (CoBOP)	scenario-specific	Lw, Rrs, at-sensor radiance		S. Ackleson