

Abstract Submitted
for the NWS11 Meeting of
The American Physical Society

Viewing the Northwest Coast and Lakes from Space: HICO and MERIS 2011¹ NICHOLAS TUFILLARO, Dynamic Penguin, LLC. — Northwest surface water quality — lakes, reservoir, and the coastal ocean — are observed with two imaging spectrometers in earth orbit. The first is MERIS, a filter spectrometer with 15 bands in the visible and near-IR, and a 30 meter ground pixel size. The second is HICO, an experimental grating spectrometer on the international space station with approximately 100 spectral bands and ground pixel size of 100 meters. We examine Northwest waters in an effort to estimate water quality parameters such as sediment loads and transport, and algal concentrations. In particular, we illustrate how remote sensing, and site specific in-situ measurements, can be combined to build simple detectors for events like harmful algal blooms. Come see beautiful pictures and spectra of the Klamath lake, Crater lake, and the Columbia river from 2011.

¹We thank the Naval Research Lab (NRL) and NOAA for their support. HICO is the trademark of NRL.

Nicholas Tufillaro
Dynamic Penguin, LLC.

Date submitted: 13 Sep 2011

Electronic form version 1.4