

Hydrographic Vertical Separation Surfaces (HyVSEPs)

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1 pm Room C-10 (Head Hall)

Catherine Robin¹, Shannon Nudds², Phil MacAulay², Andre Godin², Bodo de Lange Boom², and Jason Bartlett²

¹ Canadian Geodetic Survey, ² Canadian Hydrographic Service

The Canadian Hydrographic Service in collaboration with the Canadian Geodetic Survey has completed a set of gridded tidal water level models known as Hydrographic Vertical Separation Surfaces (HyVSEPs). HyVSEPs connect tidal water level datums (high and low water levels, chart datum, etc.) to a national geodetic reference frame for all Canadian tidal waters. In the past, this was possible only at tide stations which had been surveyed with GPS or by leveling. HyVSEPs captures the spatial variability of tidal water levels between stations and offshore by integrating ocean models, tide gauge records, GPS observations, sea level trends, satellite altimetry, and a geoid model. In this presentation I will give an overview of the procedures for producing HyVSEPs and the unique challenges of such a project, and show an example of coastline and intertidal zone definition using HyVSEPs.

Presenter: Dr. Catherine Robin

Catherine Robin received her doctorate in Physics, Geology & Environmental Science from the University of Toronto, after which she held an NSERC Visiting Fellowship with the Canadian Geodetic Survey and the Canadian Hydrographic Service. Since May of 2015 she has been with the Canadian Geodetic Survey.

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