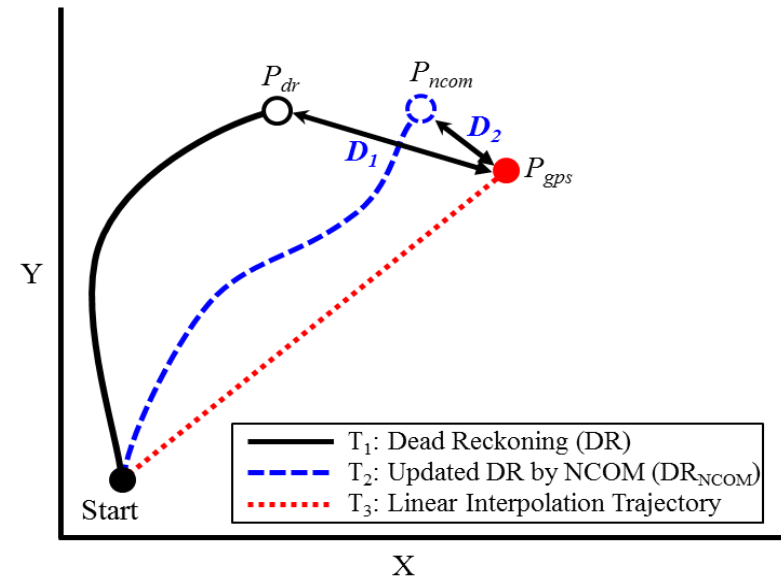


UUV Path Planning for ASW/MIW Using Navy's Ocean Data

PI: Peter C. Chu (NPS)

Objectives

- Implementation of Navy's ocean data (such as the ocean current velocity, bathymetry, and bottom roughness, etc.) into the UUV path planning with obstacle avoidance.



Technical Approach

- Optimal estimation of underwater UUV (such as glider) with incorporating the Regional Navy Coastal Ocean Model (NCOM) data
- This project is a multi-institutional efforts among NPS (Chu, and students), NRL-SSC (Ko), and Naval Oceanographic Office (Bestch).

Accomplishments

- Depth-averaged and depth-dependent correction algorithms have been developed to optimally estimate the UUV underwater trajectory using the NCOM data.
- Two thesis students (LCDR Jooeon Shim and LT Vance Villarreal) have been graduated in September 2014.