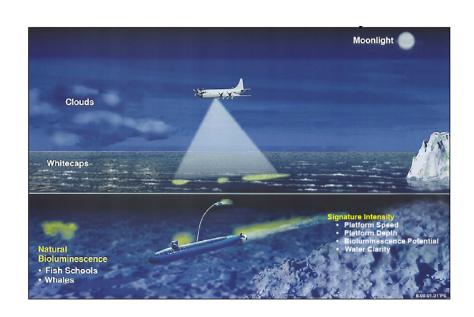# Glider-Measured Underwater Bioluminescence for Submarine - Peter Chu (OC)

partnerships with naval labs

This project will be conducted in collaboration closely among NPS (Dr. Peter C. Chu), NUWC-NPT (Dr. Thomas A. Wettergren, US Navy Senior Technologist), and NAVO (Mr. Ronald Betsch, ASW/MIW program manager, NAVO; Dr. Choi, Ocean Modeling group).

NAVO will provide $120,000 for FY15

Brief Description

- Bioluminescence emitted from marine organisms upon mechanical stimulation provides a new approach to identify mines or mine-like obstacles for submarine minefield navigation.

- The spatial and temporal fluctuations of these optical water types overlaid on changes in the bioluminescence potential make these areas uniquely complex. To aid in submarine minefield navigation, algorithm will be developed to analyze effectively the Navy's seagliders' underwater bioluminescence, optical, and hydrographic data.

- **Three Students (USN) will work on the project for their thesis research** (Graduate in FY15):

  LCDR Martinez, LT Sharp, and LT Doty