



Calhoun: The NPS Institutional Archive
DSpace Repository

Faculty and Researchers

Faculty and Researchers Collection

2012

Mine Detection and Localization

Chu, Peter C.

<http://hdl.handle.net/10945/36658>

Downloaded from NPS Archive: Calhoun



Calhoun is a project of the Dudley Knox Library at NPS, furthering the precepts and goals of open government and government transparency. All information contained herein has been approved for release by the NPS Public Affairs Officer.

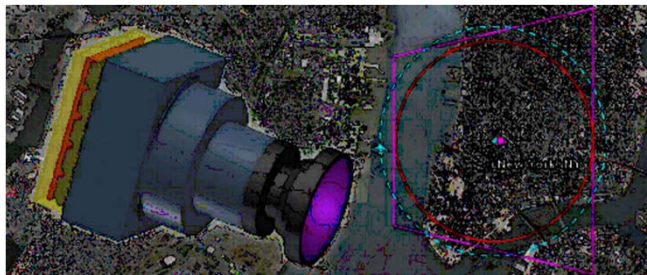
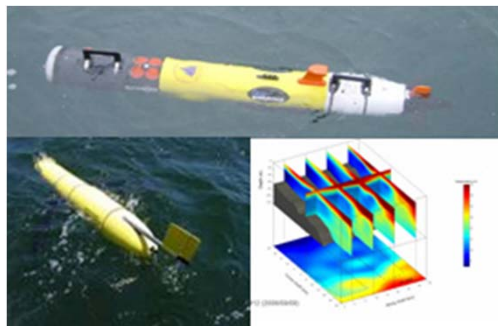
Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

<http://www.nps.edu/library>

Mine Detection and Localization

PI: Peter C. Chu (pcchu@nps.edu), Sponsor: NAVOCEANO (Ronald E. Bestch)
2011-2012, Funding Level: \$120,000

Sensing and sampling are two important aspects in detection and surveillance. Up until now, these two actions are usually taken **separately and independently**



Approaches

- (1) Integration of ocean and search models
- (2) Joint optimization of sensing (mine detection/localization) and sampling (ocean environment)
- (3) New algorithm development (e.g., bi-dimensional empirical mode decomposition)

NPS Theses

Yau, J., Localization of surface or near-surface drifting mines in the Persian Gulf, MS in PO/OR, June 2012.

Colpo, K.M., Empirical mode decomposition for the detection and classification of moored mines, MS in METOC, September 2012.

Gipson, J., Joint optimization of UUV sensing and sampling for mine detection, MS in METOC, September 2012.