



## **Some ongoing and upcoming BOEM-funded studies: Chukchi & Beaufort Seas**



***Guillermo Auad***  
**Office of Environmental Programs**  
**Environmental Studies Program**



## BOEM & BSEE



**BOEM manages development of the nation's offshore resources in an environmentally and economically responsible way.**

**BSEE develops and enforces safety and environmental regulations.**



# Environmental Studies Program



*Applied science for informed decisions on ocean energy*

## **Mission:**

Provide the information needed to predict, assess, and manage impacts from offshore energy and marine mineral exploration, development, and production activities on human, marine, and coastal environments.

Annual budget: ~ \$35 M



January 14, 2014

AICC

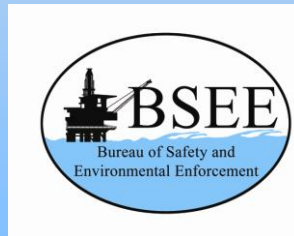


# Interagency Agreements



**More than 40 years of  
Applied Environmental Research**

**Partnering and Leveraging Resources is  
Good Government**



Subcommittee on  
Ocean Science and Technology  
Interagency Working Group on  
Ocean Partnerships



Smithsonian  
Institution



National  
Oceanographic  
Partnership  
Program



Coastal  
Marine  
Institute

*University of Alaska & Minerals Management Service*



# Partnering Awards



## PARTNERING AWARDS

### Interagency Excellence in Partnering Award

**2007** Archaeological and Biological Analysis of World War II Shipwrecks in the Gulf of Mexico

**2012** Lophelia II study



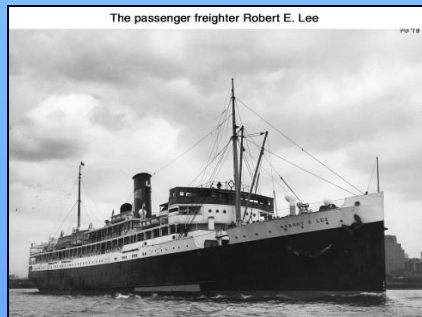
### DOI Cooperative Conservation Award

**2007** - Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico (Chemo III)

**2008** - 15 Year Partnership with UAF-CMI

**2009** - Flower Garden Banks Long Term Monitoring Program

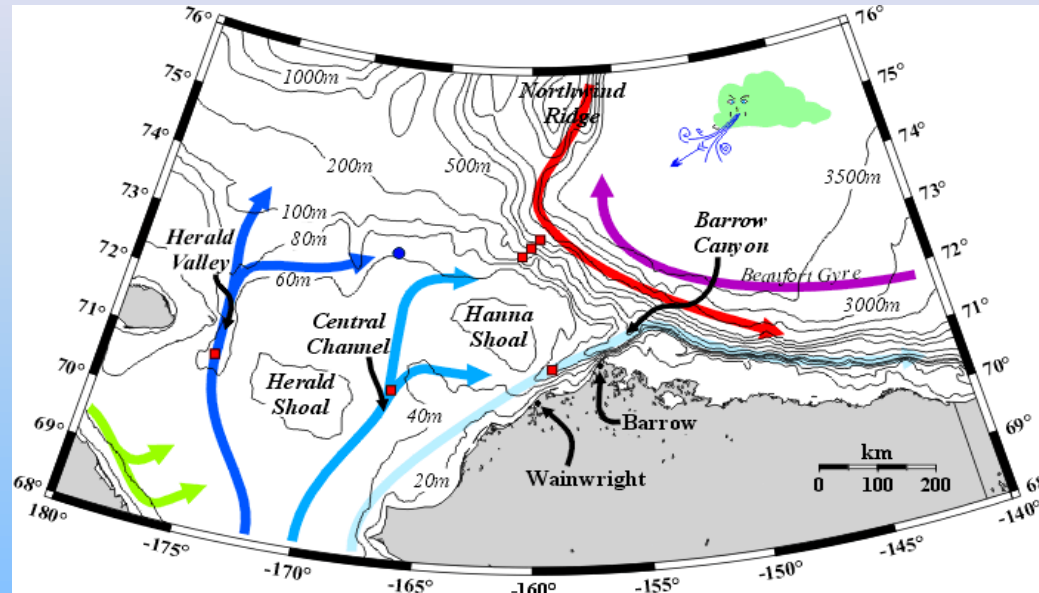
**2009** – Battle of the Atlantic



## Titles:

- **Characterization of the Circulation on the Continental Shelf Areas of the Northeast Chukchi and Western Beaufort Seas**
- **Applications for Mapping Spilled Oil in Arctic Waters**
- **Hanna Shoal Ecosystem Study**

# Characterization of the Circulation on the Continental Shelf Areas of the Northeast Chukchi and Western Beaufort Seas

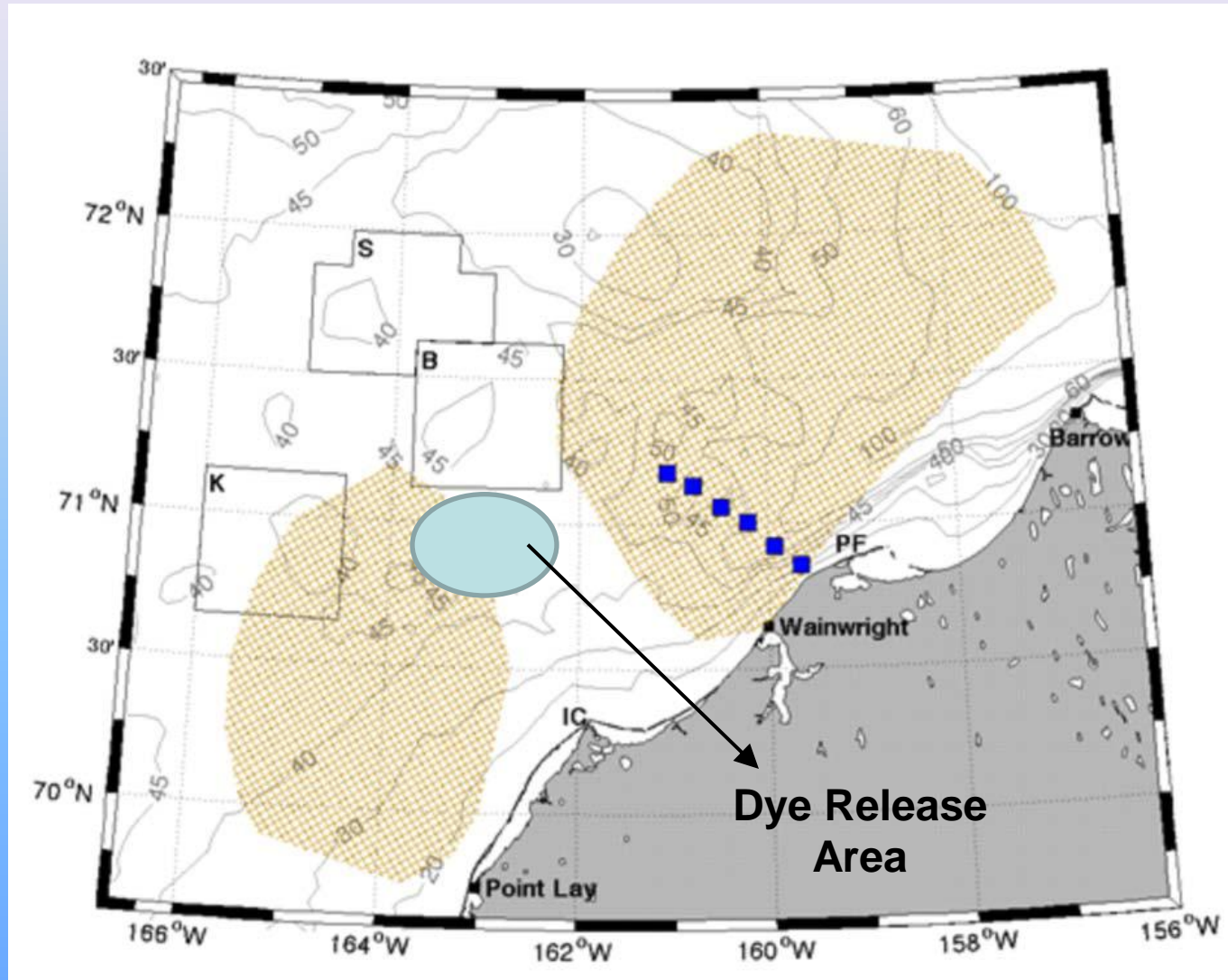


Project Field Work Timeline - All Dates Are Subject to Change Due to Weather and Logistics

TASKS	2012												2013												2014											
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
HFR Systems Operational																																				
Drifters Deployed																																				
Glider Surveys																																				
Towed Survey with Mooring																																				

# Applications for Mapping Spilled Oil in Arctic Waters

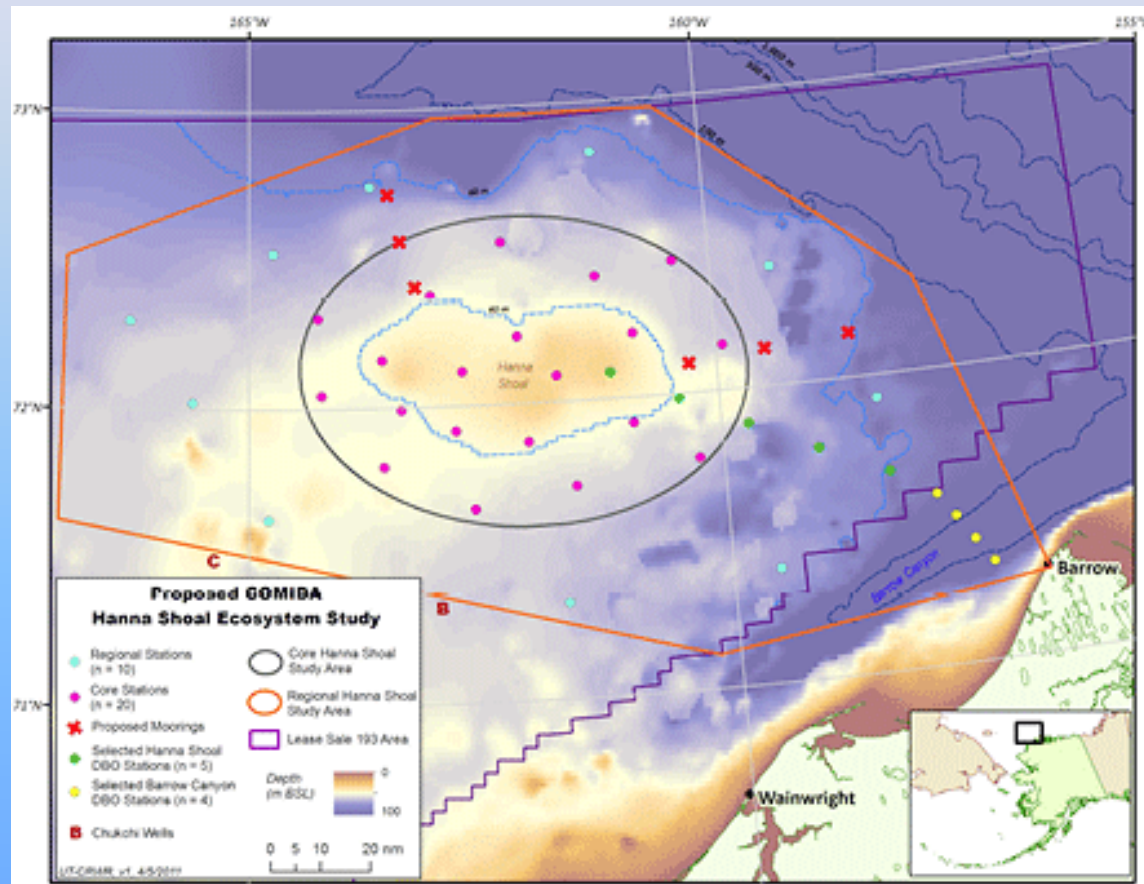
## Field Activities in 2014 & 2015





# Hanna Shoal Ecosystem Study

## Mooring retrieval in 2014



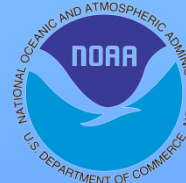
## Titles:

- **MARES (Marine ARctic Ecosystem Study)**
- **Enhanced Verification and Interpretation of Arctic Ice Break-up and Freeze-up for the Beaufort and Chukchi Seas**



## Enhanced Verification and Interpretation of Arctic Ice Break-up and Freeze-up Field seasons

- Operational forecasts
- Field & Remote (SAR, MODIS) Observations + Modeling
- Chukchi and Beaufort Seas
- Field seasons: 2015 and 2016
- Interagency Agreement





## MARES (Marine ARctic Ecosystem Study) Field seasons in 2015 & 2016

- Integrated **ecosystem dynamics & monitoring** (physics, chemistry, biology, social) through coordinated **observational & modeling** efforts in Beaufort Sea.
- It will be implemented in coordination with NPRB's PAGES in **Chukchi Sea**.
- Relevant to: ecosystem dynamics, environmental protection, climate change and monitoring, oil spill risk analysis, and exploration and discovery.
- It will facilitate the incorporation of **technological innovations** through **TFORT**
- MARES is aligned with the National Ocean Policy, the Interagency Arctic Research Policy Committee's 5-year research priorities, and USGS report recommendations.



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*More partners welcome!*