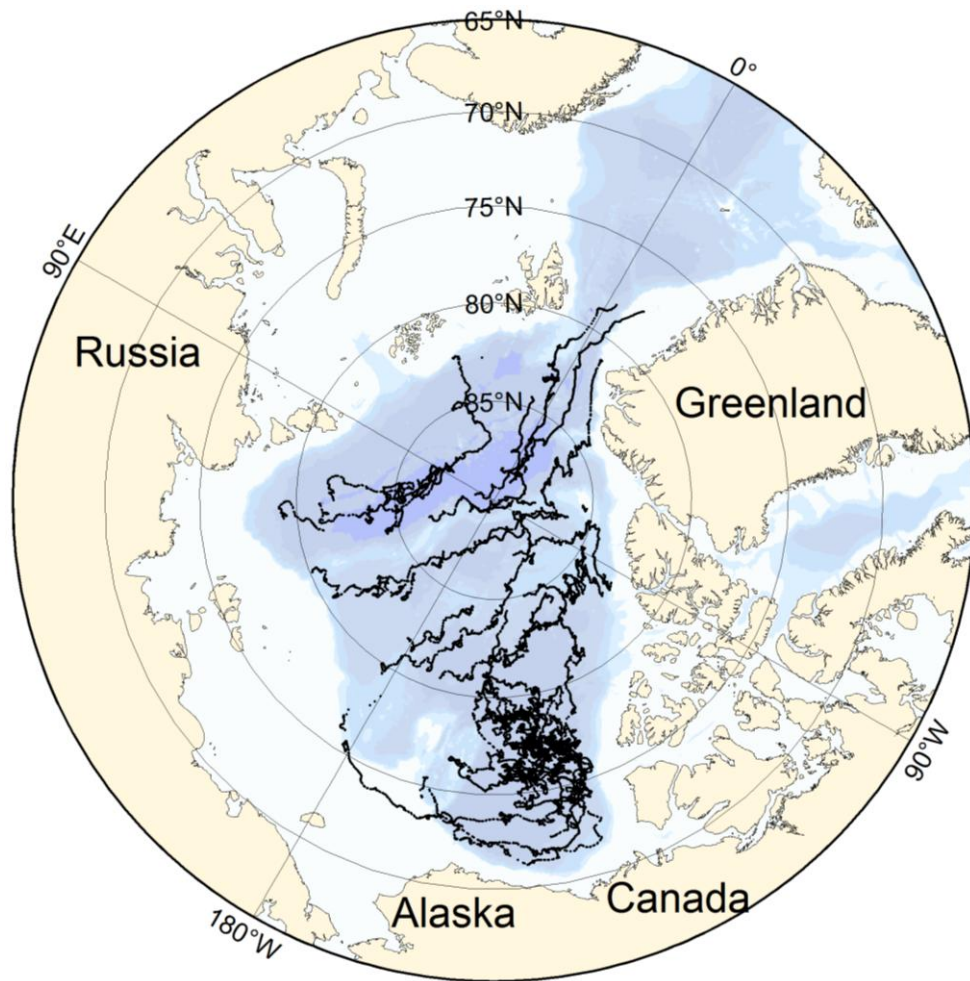


# Ice-Tethered Profiler

An autonomous instrument for sustained observation of the Arctic Ocean



- Overview
- Background
- Field Work
- Data
- Hot Topics
- Publications
- Links

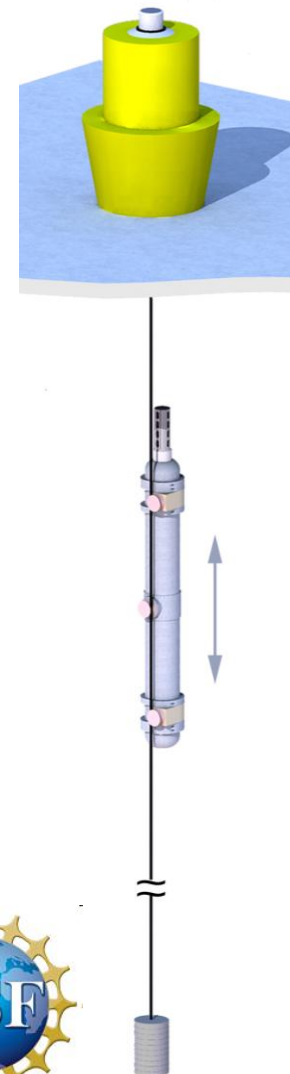


50 ITPs deployed in the Arctic since 2004  
 > 35000 profiles

construct and deploy **six** systems annually  
 2012, 2013

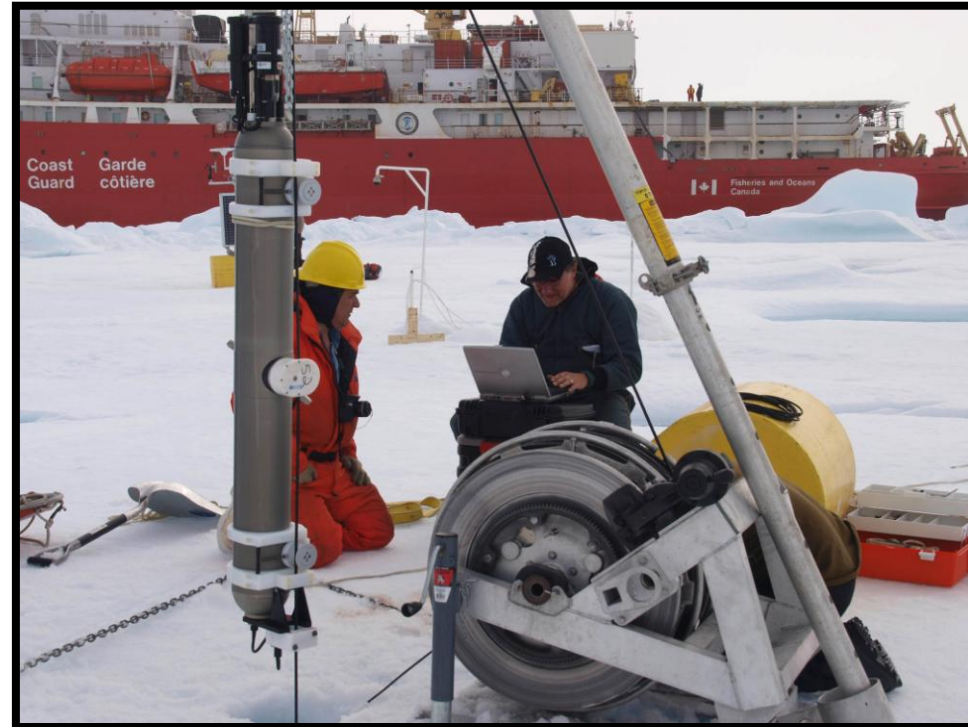
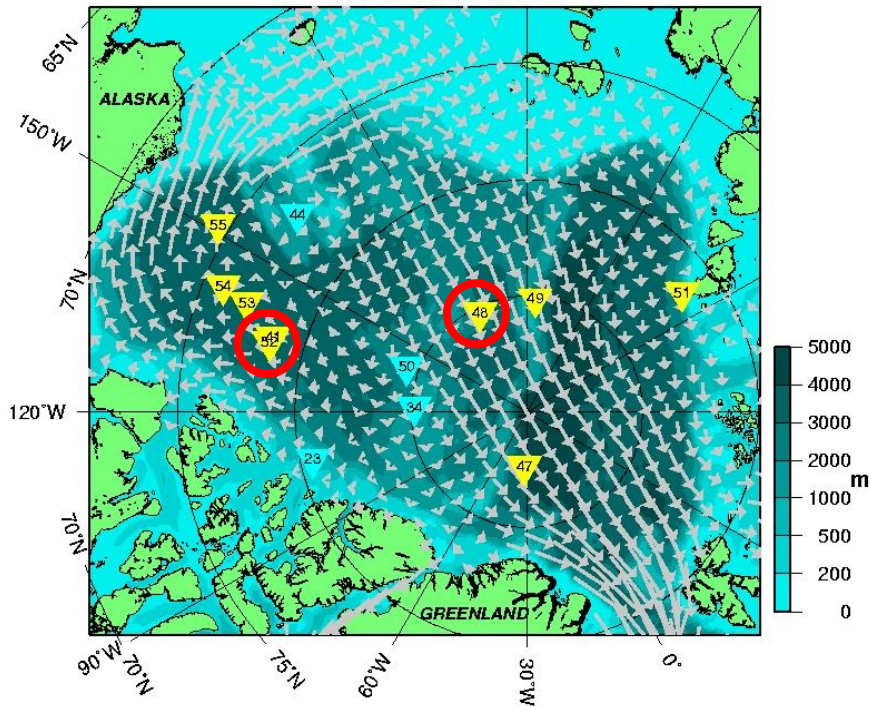
additional sensors:

- velocity
- dissolved oxygen
- Bio-optical



# Ice-Tethered Profilers with bio-optical sensors

ITP Locations: 25-Oct-2011



Two bio-ITPs deployed in Fall 2011  
CDOM, chlorophyll, backscatter, PAR

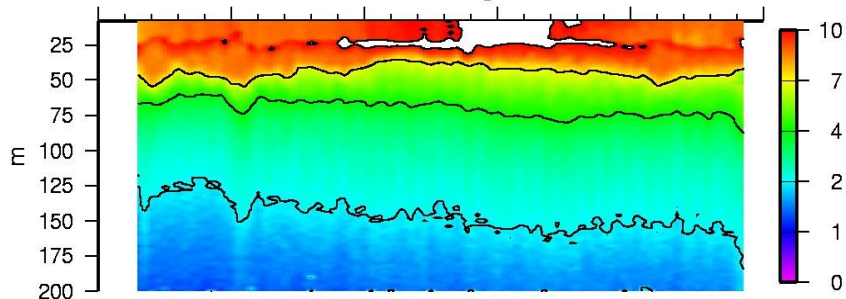
Future deployments of bio-optical ITPs include three each in 2012 and in 2013,  
as part of the NSF AON project.

# Bio-ITPs: chlorophyll, turbidity, CDOM, PAR irradiance

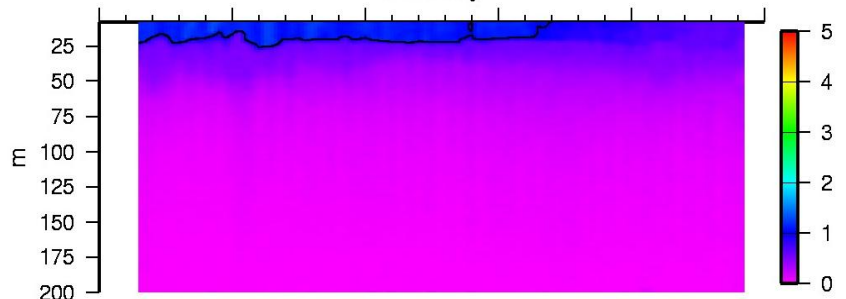
## Central Arctic

ITP48 Up Profile Contours (to profile 182)

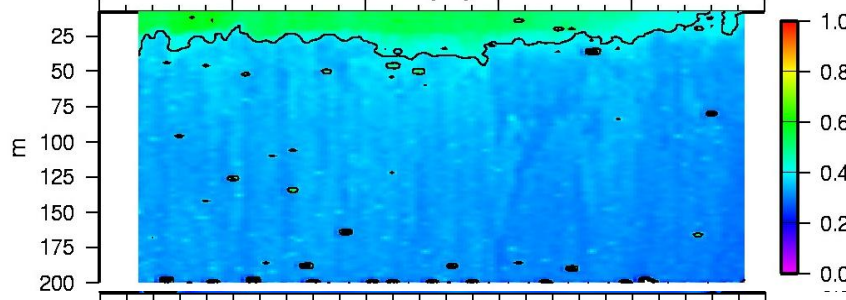
colored dissolved organic matter



turbidity



chlorophyll a

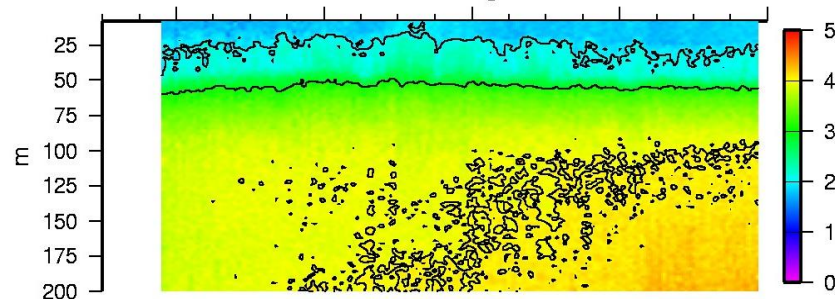


day 2011

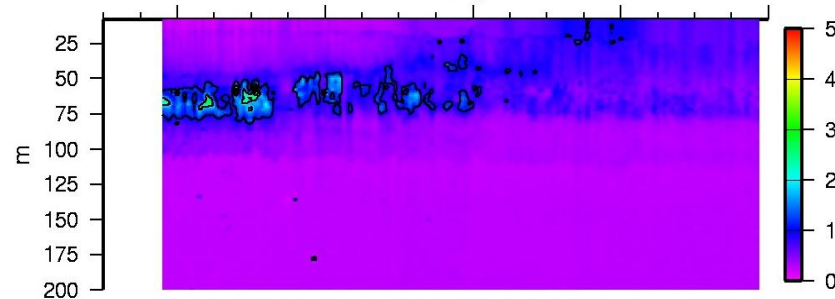
## Canada Basin

ITP52 Up Profile Contours (to profile 321)

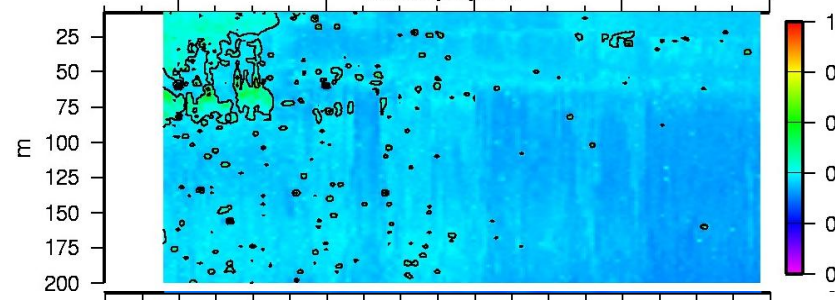
colored dissolved organic matter



turbidity



chlorophyll a



day 2011

For data, publications and further information visit:

**Ice-Tethered Profiler program:**

[www.whoi.edu/itp](http://www.whoi.edu/itp)

John Toole (WHOI) is lead PI.



# ARCTIC CLIMATE SYSTEM NETWORK (ACSNet)

## An IASC cross-cutting initiative

### Coordinators:

Mary-Louise Timmermans (MWG)

John Cassano (AWG)

Pedro Elosegui (CWG)

Jeremy Wilkinson (MWG)

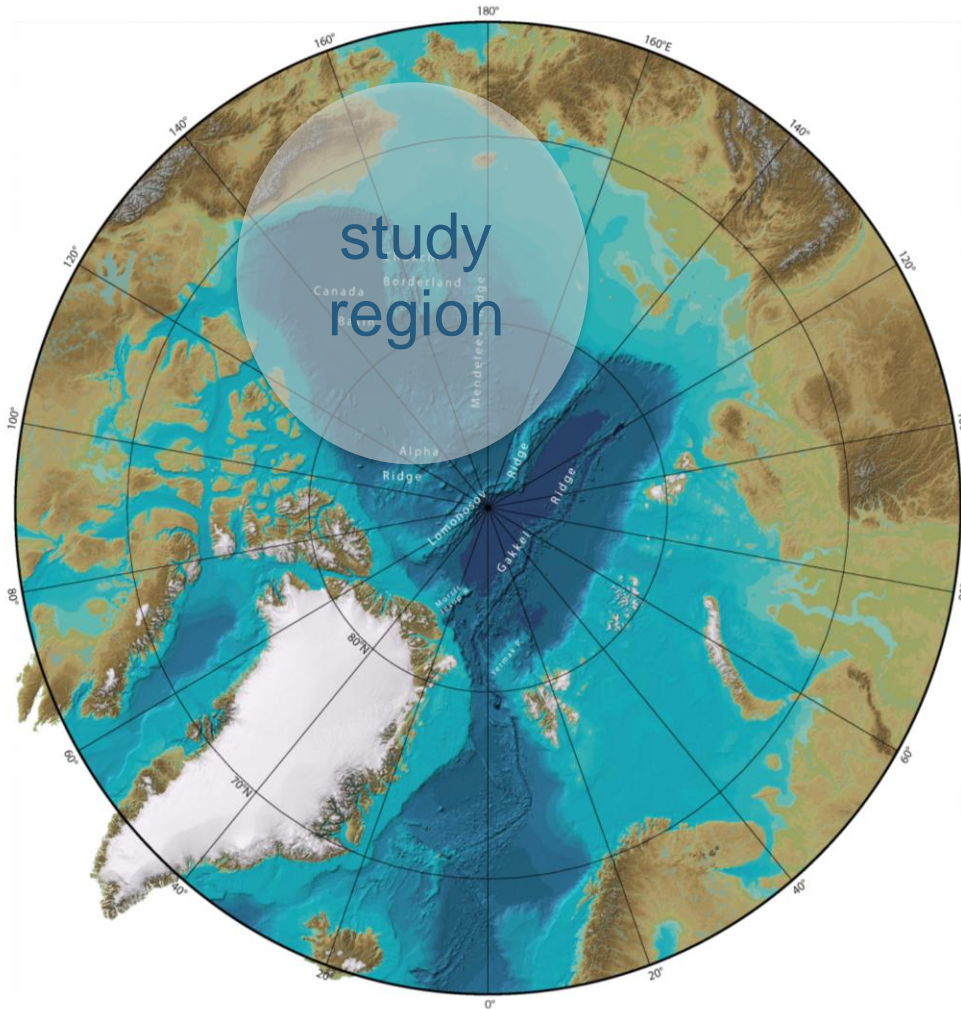
### Key upcoming activity:

**Inaugural ACSNet Meeting**, 23 April 2012, from 5:30-7:30 pm

(During IPY2012 Conference, April 2012, Montreal)



# ACSNet Geo-Focus, Goal, and Timing



**Goal:** - Facilitate an intensive cross-disciplinary study of the role of the polar ocean-cryosphere-atmosphere in climate

- Integrate efforts into a network, series of workshops, to draw together existing or emerging fieldwork in the WA and stimulate international collaborations

**Timing:** Given the international effort that is underway or planned, the approximate timeline of ACSNet activities will be:

Initial workshops 2011 –13

Main field phase 2013 – 15

Synthesis effort 2015 -16

## *Potential participating programs*

UK TEA-COSI, EU-ACCESS, SATICE, iAOOS France, programs outlined at this meeting, numerous western Arctic projects funded under the ONR Marginal Ice Zone DRI .... and [insert your field program here].



Projects will involve studies of the ocean/atmosphere/cryosphere/ecosystem, and will include a wide range of infrastructure (air, ship, camps), investigators (from all disciplines), and instrumentation (e.g., autonomous platforms).

## Further Information



### ○ **Contact any of the present ACSNet coordinators:**

- M-L Timmermans: *mary-louise.timmermans@yale.edu*
- John Cassano: *john.cassano@colorado.edu*
- Pedro Elosegui: *p.elosegui@csic.es*
- Jeremy Wilkinson: *jeremy.wilkinson@sams.ac.uk*

### ○ **Participate in the Inaugural ACSNet Meeting:**

23 April 2012, from 5:30-7:30 pm (during IPY2012 in Montreal)

### ○ **See the web:**

<http://iasc.arcticportal.org/index.php/home/networks/arctic-climate-system-network-acsnet>