

Overview

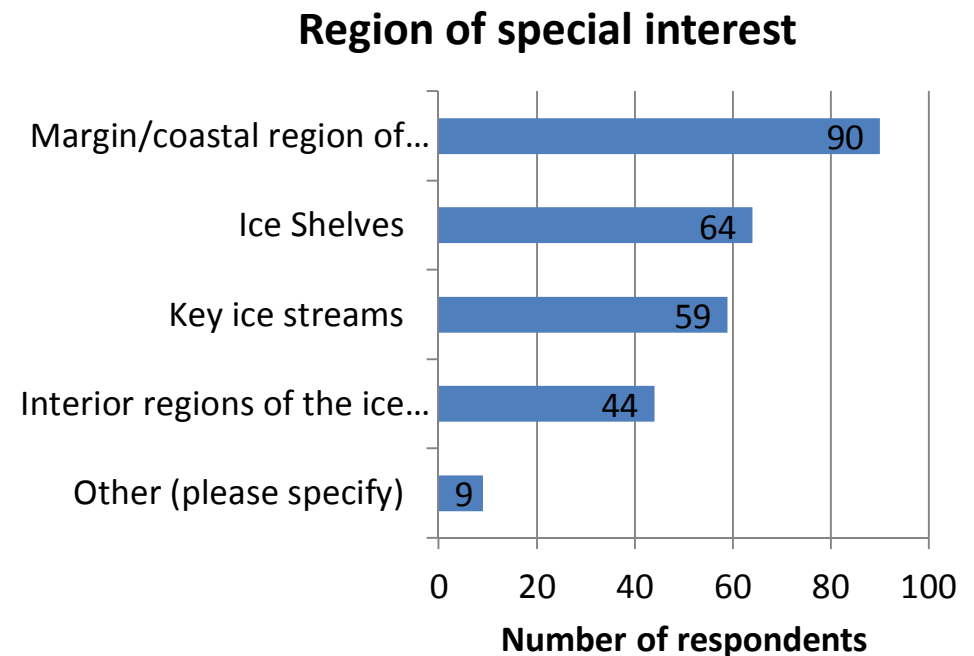
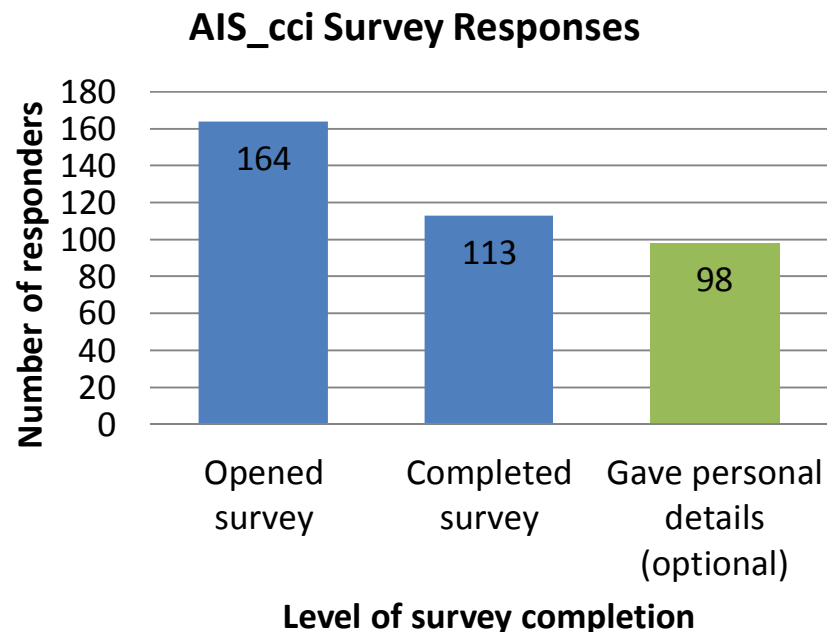
1. Project Overview
2. User Requirements
3. AIS_cci Products
4. AIS_cci Team
5. Climate Research Group
6. CMUG in Antarctica
7. Data Portals

1. Project Overview

- Project Kick Off - 1st April 2015
- Started as Phase 2 CCI project
 - Builds on Phase 1 achievements of Greenland Ice Sheet CCI project
- User and product requirements for Antarctic CCI project determined by 4 month scoping study in 2014
- Algorithms and systems ported from Greenland CCI Phase 1

2. User Requirements

- User survey widely advertised on social media and CryoList
- 164 respondents
- Median expertise >10 years and wide range of disciplines
- Focus product generation on ice sheet margins



2. Requirements Summary

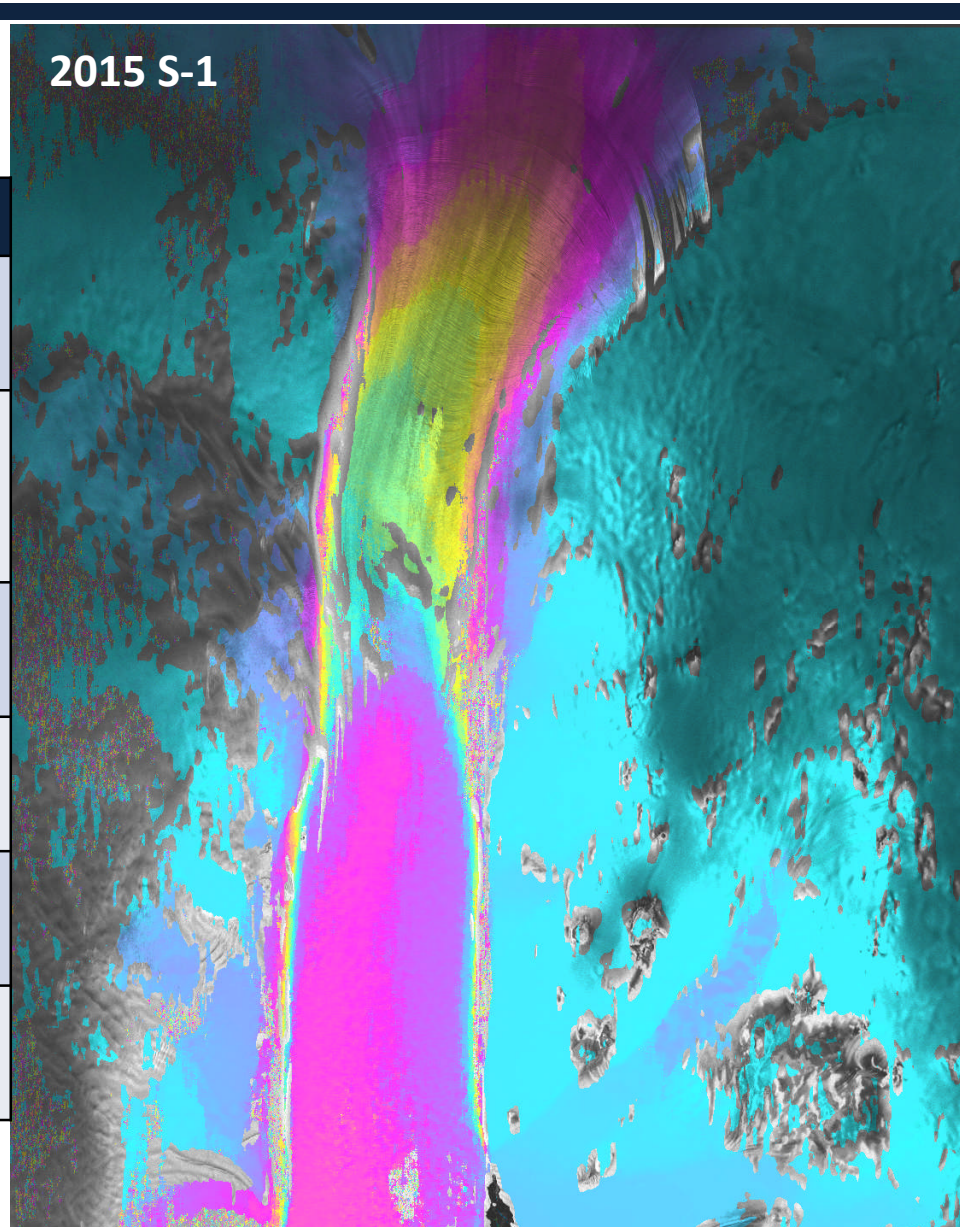
- Spatial and temporal resolution defined
- Regions of interest & priority defined
- Product specification defined
- Long term records are desired
- Highest priority products are MB, SEC, IV and GLL
- Significant demand for all products

3. Surface Elevation Change

	SEC
Product Format	Gridded
EO Input Data	E1/E2, EV, CS2
Temporal Range	1992 –
Temporal Frequency	monthly
Spatial Coverage	Antarctica
Spatial Resolution	5km grid

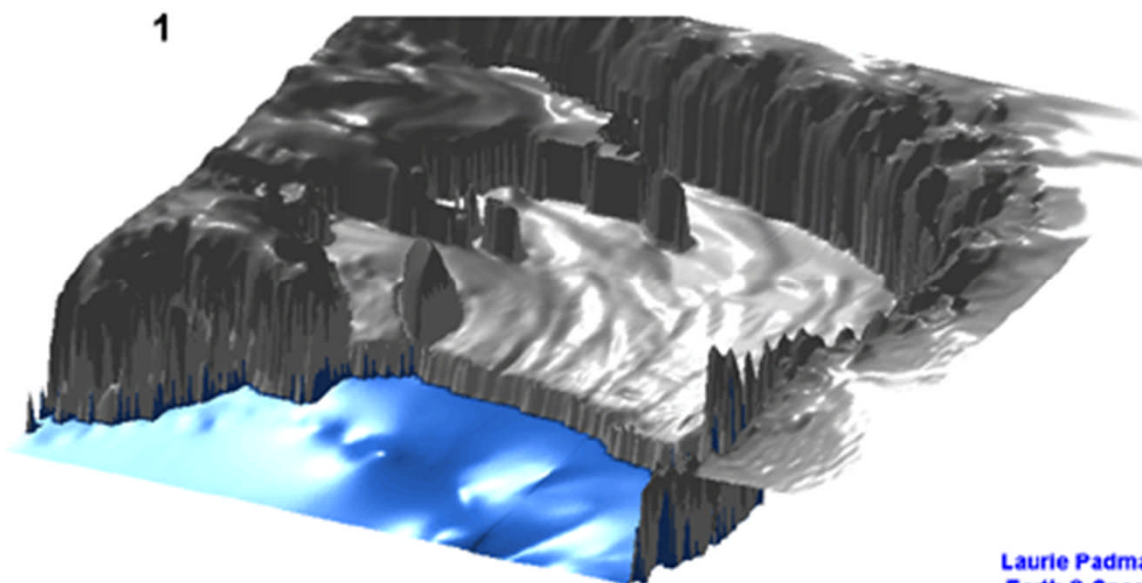
3. Ice Velocity

	WAIS and APIS	Ice Stream
Product Format	Gridded	Gridded
EO Input Data	E1, E2, EV, R1, TSX, S1	E1, E2, EV, R1, TSX, S1
Temporal Range	1992 –	1992 –
Temporal Frequency	decadal	annual
Spatial Coverage	WAIS and APIS	20 key ice streams
Spatial Resolution	500m grid	500m grid



3. Grounding Line

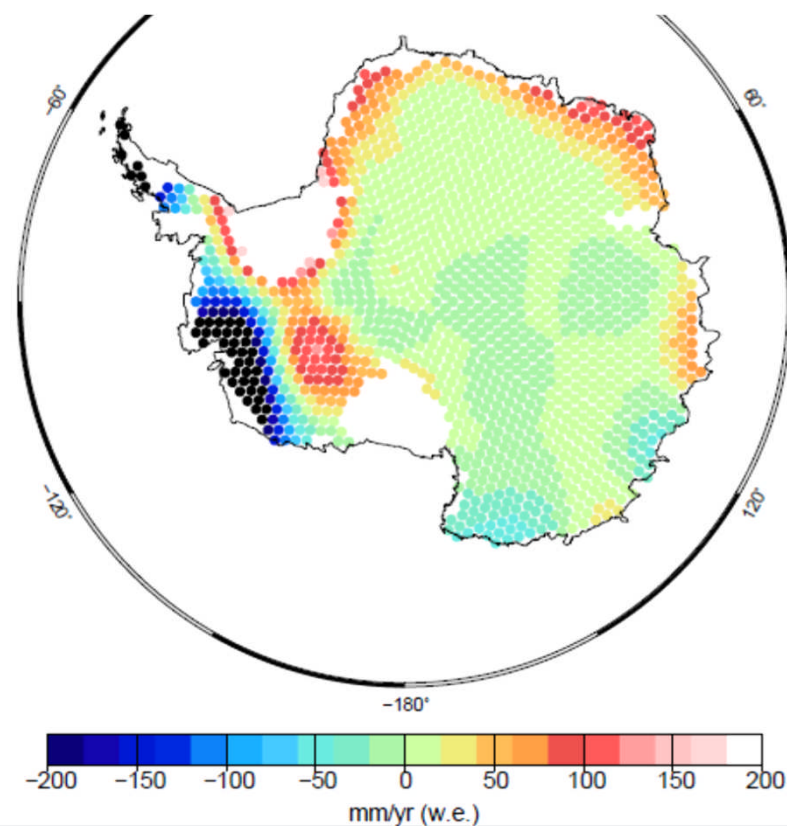
	Grounding Line
Product Format	Shapefile
EO Input Data	E1, E2, EV, R1, TSX, S1
Temporal Range	1992 –
Temporal Frequency	decadal
Spatial Coverage	5-10 key ice streams
Spatial Resolution	250m line



Laurie Padman
Earth & Space
Research

3. Gravimetry Mass Balance

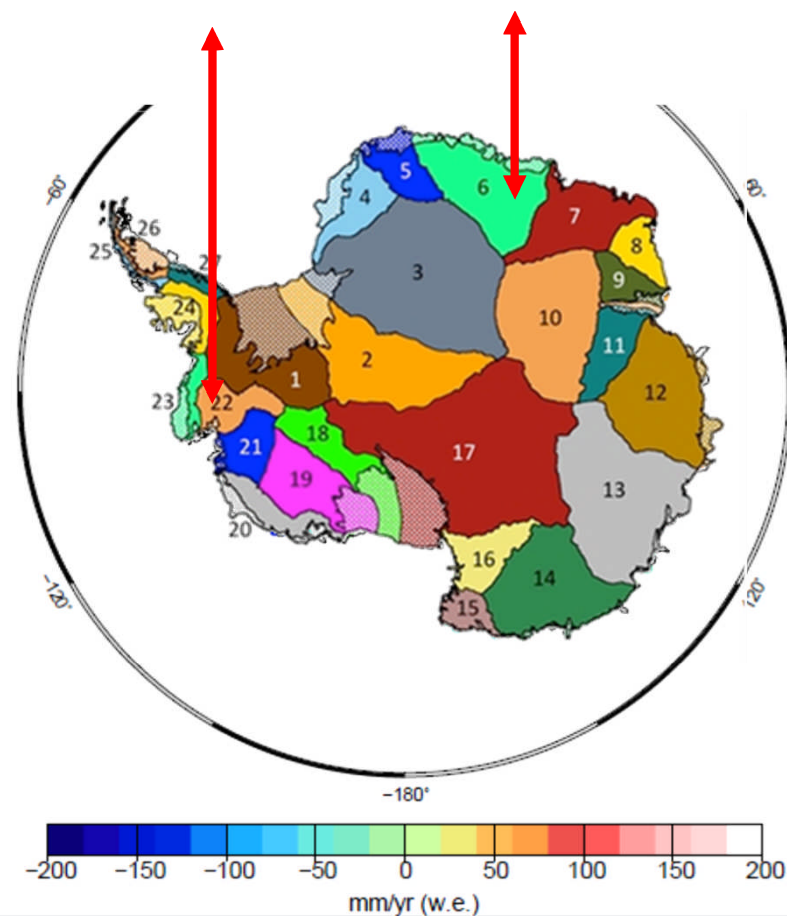
	GMB - Gridded	GMB - Basin
Product Format	Gridded	Per-basin
EO Input Data	GRACE	GRACE
Temporal Range	2002 –	2002 –
Temporal Frequency	monthly	monthly
Spatial Coverage	Antarctica	Antarctica
Spatial Resolution	100m grid	Drainage basin



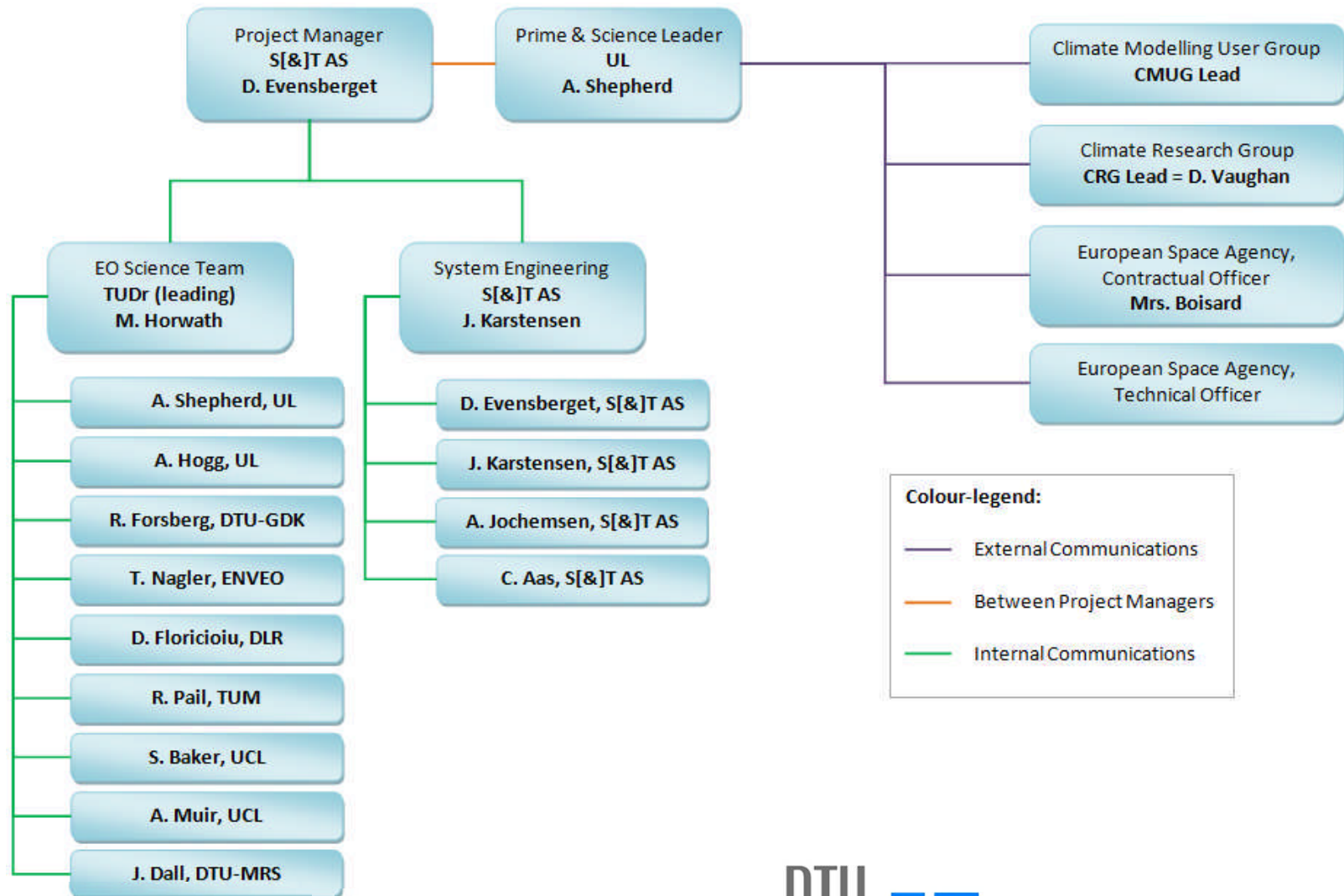
3. Gravimetry Mass Balance

Gravimetry Mass Balance

	GMB - Gridded	GMB - Basin
Product Format	Gridded	Per-basin
EO Input Data	GRACE	GRACE
Temporal Range	2002 –	2002 –
Temporal Frequency	monthly	monthly
Spatial Coverage	Antarctica	Antarctica
Spatial Resolution	100m grid	Drainage basin



4. AIS_cci Team



5. Climate Research Group

Partner	Organisation	Country	Competence	Role
D. Vaughan	British Antarctic Survey	UK	Glaciology	CRG Lead
A. LeBroq	University of Exeter	UK	Ice Sheet Modelling	CRG Member (Antarctica)
M. R. van den Broeke	University of Utrecht	Netherlands	Climate modelling	CRG Member (Antarctica)
H. Hellmer	Alfred Wegener Institute	Germany	Ice Sheet- Ocean modelling	CRG Member (Antarctica)
E. Schrama	TU Delft	Netherlands	Gravimetry	CRG Member (AIS & GrIS)

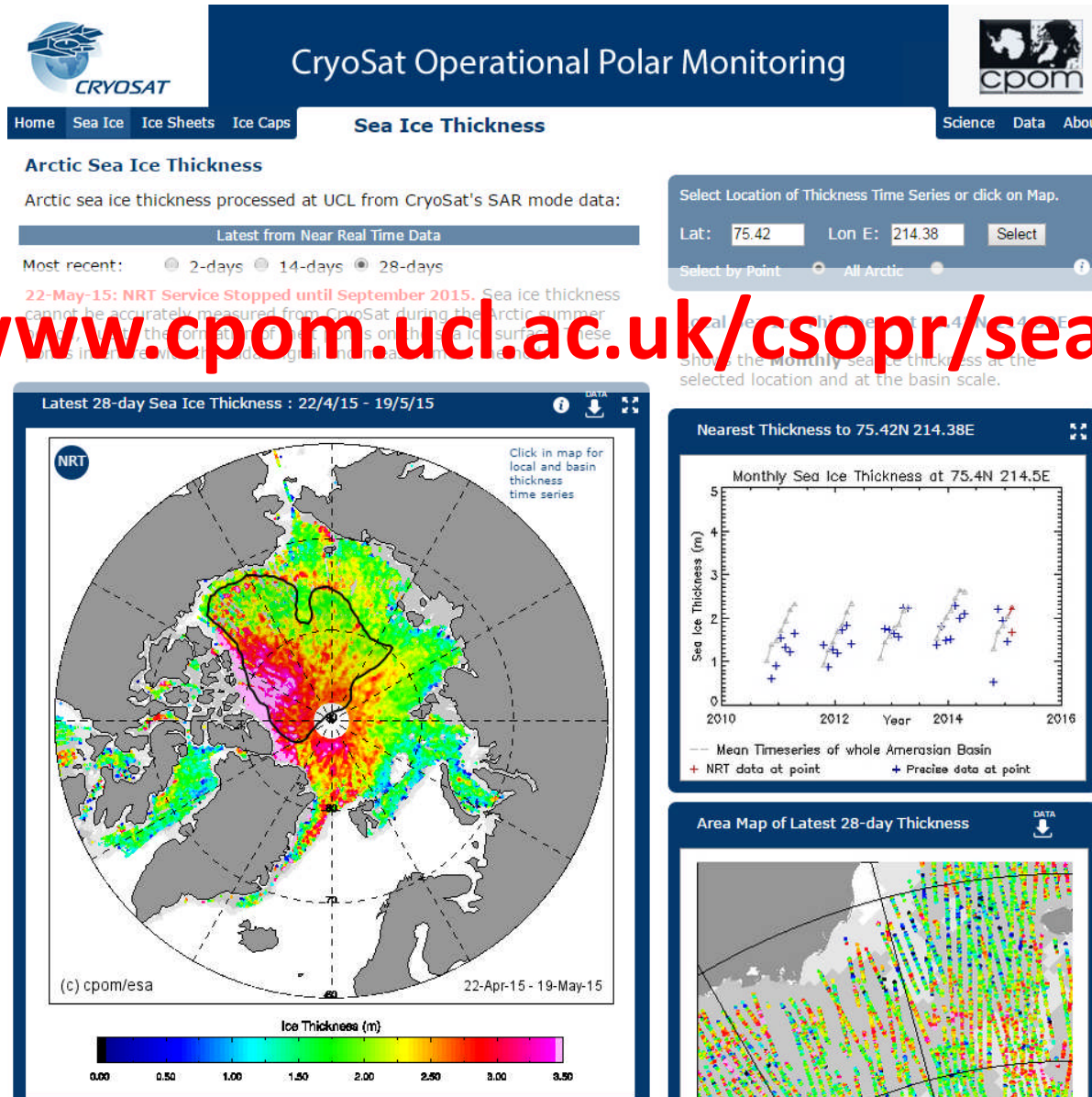


Universiteit Utrecht



6. CMUG in Antarctica

7. Data Portals



The screenshot shows the CryoSat Operational Polar Monitoring (cpom) website interface. At the top, there are logos for CryoSat and cpom, and a navigation menu with options like Home, Sea Ice, Ice Sheets, Ice Caps, and Science. The main heading is "CryoSat Operational Polar Monitoring" and the current page is "Sea Ice Thickness".

Under "Arctic Sea Ice Thickness", there is a section for "Arctic sea ice thickness processed at UCL from CryoSat's SAR mode data:". Below this, there are options for "Latest from Near Real Time Data" and "Most recent:" with radio buttons for "2-days", "14-days", and "28-days".

A red text overlay is present: <http://www.cpom.ucl.ac.uk/csopr/seaice.html>

There is a search box for "Select Location of Thickness Time Series or click on Map." with input fields for "Lat: 75.42" and "Lon E: 214.38" and a "Select" button. Below the search box, there are radio buttons for "Select by Point" and "All Arctic".

The main content area is divided into three panels:

- Left Panel:** "Latest 28-day Sea Ice Thickness : 22/4/15 - 19/5/15". It features a polar projection map of the Arctic region with a color scale for ice thickness in meters, ranging from 0.00 (blue) to 3.50 (red). A legend indicates "Ice Thickness (m)" with values from 0.00 to 3.50. The map is labeled "NRT" and "Click in map for local and basin thickness time series".
- Middle Panel:** "Nearest Thickness to 75.42N 214.38E". It shows a "Monthly Sea Ice Thickness at 75.4N 214.5E" plot. The y-axis is "Sea Ice Thickness (m)" from 0 to 5. The x-axis is "Year" from 2010 to 2016. The plot shows data points for "Mean Timeseries of whole Amerasian Basin" (grey line) and "NRT data at point" (red plus signs). A legend also includes "Pracice data at point" (blue plus signs).
- Right Panel:** "Area Map of Latest 28-day Thickness". It shows a zoomed-in view of the sea ice thickness data for the selected location, with a color scale from 0.00 to 3.50 meters.