

The Copernicus C3S and WMO I-DARE Climate Data Rescue Portals



Climate Change

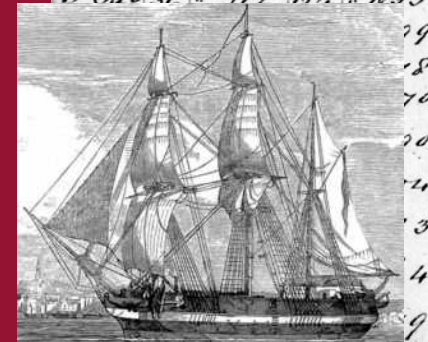
EMS 2018, Budapest

Peter Siegmund⁽¹⁾, Rob Allan⁽²⁾,
Paul van der Linden⁽²⁾, Antónia Valente⁽³⁾,
Stefan Brönnimann⁽⁴⁾, Kate Willett⁽²⁾

(1) KNMI, siegmund@knmi.nl,

(2) Met Office, (3) Univ Lisbon, (4) Univ Bern

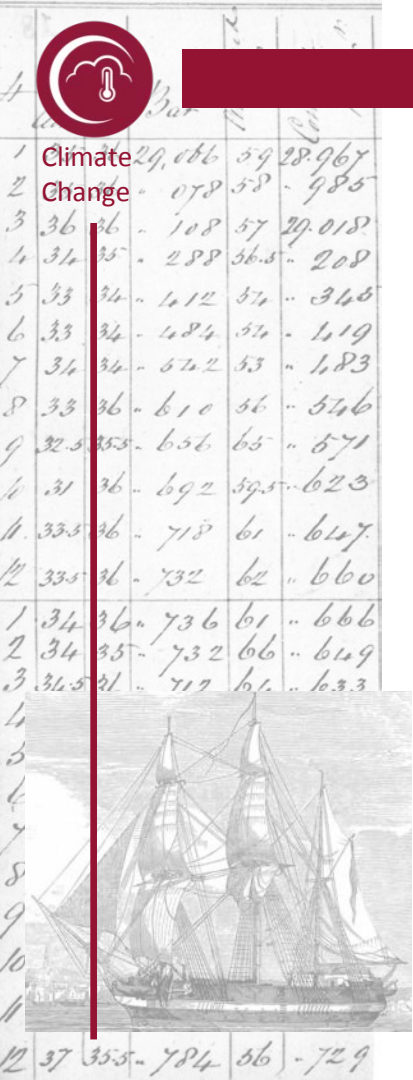
A	Th ^o		Bar ^o	Altimeter H ^o	Compass Bar ^o
	lon	lat			
1	35	36	29,066	59	28,967
2	35	36	078	58	985
3	36	36	108	57	29,018
4	31	35	288	56,5	208
5	33	34	1,12	57	316
6	33	34	484	57	1,19
7	31	34	572	53	1,83
8	33	36	610	56	576
9	32,5	35,5	656	65	571
10	31	36	692	59,5	623
11	33,5	36	718	61	617
12	33,5	36	732	62	660
1	34	36	736	61	666
2	34	35	732	66	619
3	34,5	31	717	61	633



12	37	35,5	784	56	729
----	----	------	-----	----	-----



Climate
Change



Overview

- WMO International Data Rescue (I-DARE) Portal
- Copernicus Climate Change Service (C3S) Data Rescue Portal



Climate Change

Aim of I-DARE portal



I-DARE
INTERNATIONAL DATA RESCUE
PORTAL

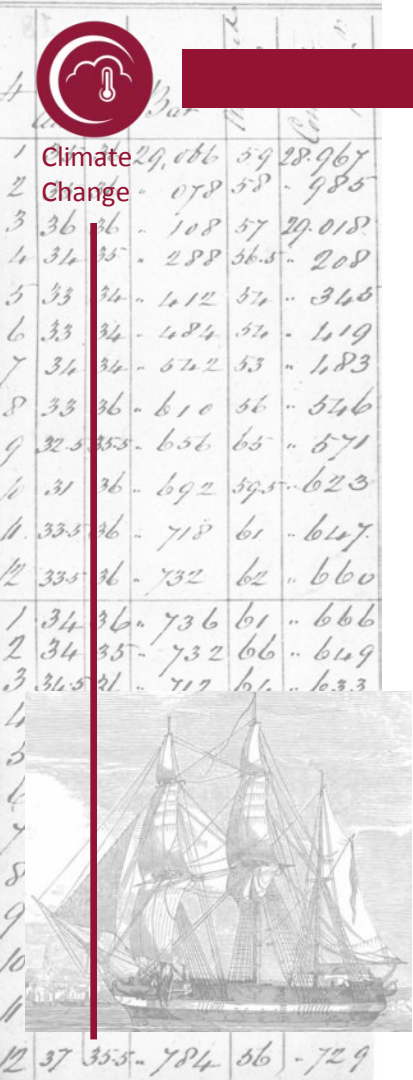
To provide a **single point of entry** for general information on the status of past and present worldwide **to be rescued data** and **data rescue (DARE) projects**, and on **DARE best practice guidelines** and tools.

The portal aims to **stimulate new DARE activities** and promote **discoverability** of, and **convergence** between, existing DARE activities.





Climate
Change



History of I-DARE portal



I-DARE
INTERNATIONAL DATA RESCUE
P O R T A L

- **WMO Congress 2012:**
Enhance the capacity of NMHSs and other climate data communities to accelerate recovery and digitization of old and recent climate records.
- I-DARE portal available since 2015.

Supervised by the **WMO Commission for Climatology (CCI) Expert Team on Data Rescue**, operated by the **Royal Netherlands Meteorological Institute (KNMI)**, under the auspices of the **Global Framework for Climate Services (GFCS)**.



Climate Change

<https://idare-portal.org/>

The International Data Rescue (I-DARE) Portal

This International Data Rescue (I-DARE) Portal provides a single point of entry for information on the status of past and present worldwide to be rescued data and data rescue projects, on best methods and technologies involved in data rescue, and on metadata for data that need to be rescued.

Data & Projects

C35 Data Rescue Workshop & 10th ACRE Meeting

The C35 (Copernicus Climate Change Service) Data Rescue Capacity Building Workshop and the 10th ACRE (Atmospheric Circulation Reconstruction over Earth) Meeting will be held at NIWA in Auckland from 4-8 December 2017.

Search this site

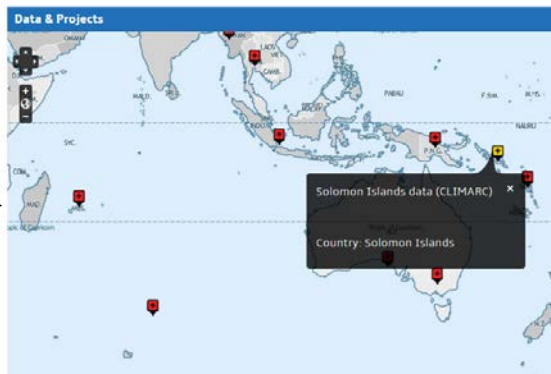
Search



I-DARE: global map: zoom, click to projects

Climate Change

1	29.066	59	28.967
2	078	53	985
3	36.86	108	57
4	31.35	288	36.5
5	33	34	1.112
6	33	34	1.84
7	31.34	67.2	53
8	33	36	61.0
9	32.5	355	656
10	31	36	692
11	33.3	36	718
12	33.5	36	732
1	34	36	736
2	34	35	732
3	34.5	31	717
1	34	36	736
2	34	35	732
3	34.5	31	717
12	37	35.5	784



Solomon Islands data (CLIMARC)

More Information

Documents

WMO Region

CS3 Data Rescue Workshop & 10th ACRE Meeting

Data Factsheet





Climate
Change

1	29	066	59	28	967	
2		078	58		985	
3	36	36	108	57	20	018
4	31	35	288	56.5	208	
5	33	34	1212	57	3168	
6	33	34	1284	57	1219	
7	31	34	672	53	1283	
8	33	36	610	56	576	
9	32.5	35.5	656	65	571	
10	31	36	692	59.5	623	
11	33.5	36	718	61	617	
12	33.5	36	732	62	660	
1	34	36	736	61	666	
2	34	35	732	66	619	
3	34.5	31	717	61	633	
12	37	35.5	784	56	729	



General information on DARE projects, that means:

- Title
- Country
- Contact information
- Rescue status
- Type of assistance needed
- Location on world map
- Parameters
- Dates
- Documents
- Links
- ...
- No station metadata (generally)



Climate
Change



<https://www.idare-portal.org/content/best-practice-guidelines>



I-DARE
INTERNATIONAL DATA RESCUE
PORTAL

Home » DARE Guidelines

Best practice guidelines

- [I-DARE Quick Start Guide](#)
- [I-DARE Guide de prise en main rapide](#)
- [I-DARE Guía de iniciación rápida](#)
- [I-DARE Руководство по началу работы](#)
- [I-DARE دليل البدء السريع](#)
- [WMO Guidelines on Best Practices for Climate Data Rescue \(2016\), WMO-No. 1182](#)
- [OMM Directives sur les bonnes pratiques en matière de sauvetage des données climatologiques \(2016\), OMM-No 1182](#)
- [OMM Directrices sobre mejores prácticas para el rescate de datos climáticos \(2016\), OMM-No 1182](#)
- [WMO Guide to Climatological Practices \(2011, update 2016\)](#)
- [WMO Guide to Meteorological Instruments and Methods of Observation \(2008\)](#)
- [WMO Guidelines on Climate Metadata and Homogenization \(2003\)](#)
- [WMO page and guidelines on Climate Data Management Systems](#)
- [WMO Guidelines for Hydrological Data Rescue \(2014\)](#)



Climate
Change

1	29	066	59	28	967	
2	078	58		985		
3	36	86	108	57	20	018
4	31	85	288	56.5	208	
5	33	84	1212	57	3128	
6	33	84	1284	57	1219	
7	31	84	6722	53	1283	
8	33	86	610	56	576	
9	32.5	85.5	656	65	571	
10	31	86	692	59.5	623	
11	33.5	86	718	61	617	
12	33.5	86	732	62	660	
1	34	86	736	61	666	
2	34	85	732	66	619	
3	34.5	81	717	61	633	
12	37	35.5	784	86	729	

portal.org/content/tools-technology-used-dare

Tools & Technology used for DARE

Imaging

[Brochure for the Vanguard Scanner](#) used by Bureau of Meteorology scanning historical records.

[FileRenamer](#): computer software to rename the imaged files from a camera generated name to a name that reflects the content of the image file and to archive multiple files into directories on a PC (minimal cost for an annual license).

Strip Chart Digitization

[User manual Digibandas software \(in Spanish\)](#)

[Weather Wizards](#), a digitization program developed for IEDRO for chart digitization.

[Weather Wizards video clip](#), an explanation of the IEDRO strip chart digitization program.

Various

[Web site of Task Teams on Homogenization and Data Operations & Management](#)

[pdftools](#)

The pdftools package allows for extracting text and metadata from pdf files in R.

[Gloves references](#)

Reading and converting obsolete data:



I-DARE
INTERNATIONAL DATA RESCUE
PORTAL





Climate
Change

Populating the I-DARE Portal



Presently:

- 50 WMO focal points
- 90 users
- 50 projects



Climate
Change

How to provide input to the I-DARE Portal?



1. Registration, on site, by user *
2. Acceptance of registration
3. Log in
4. Provide DARE project general info

- * - English, French, and Spanish portal versions available.
- Quick Start Guide available on portal, in the 6 WMO-languages.
- Questions etc.: to info@idare-portal.org



Climate
Change

The Copernicus Climate Change Service (C3S)

Data Rescue Portal





Climate
Change

The C3S Data Rescue Service

- Coordinates and harmonizes in situ data rescue activities around the world.
- Facilitates and supports ongoing efforts to digitize instrumental data records extending back a century or more, and makes these records easily accessible for further processing and analysis.
- Consortium of 14 partners, led by Met Office.
- Service developed in 2017-2020.



Climate
Change

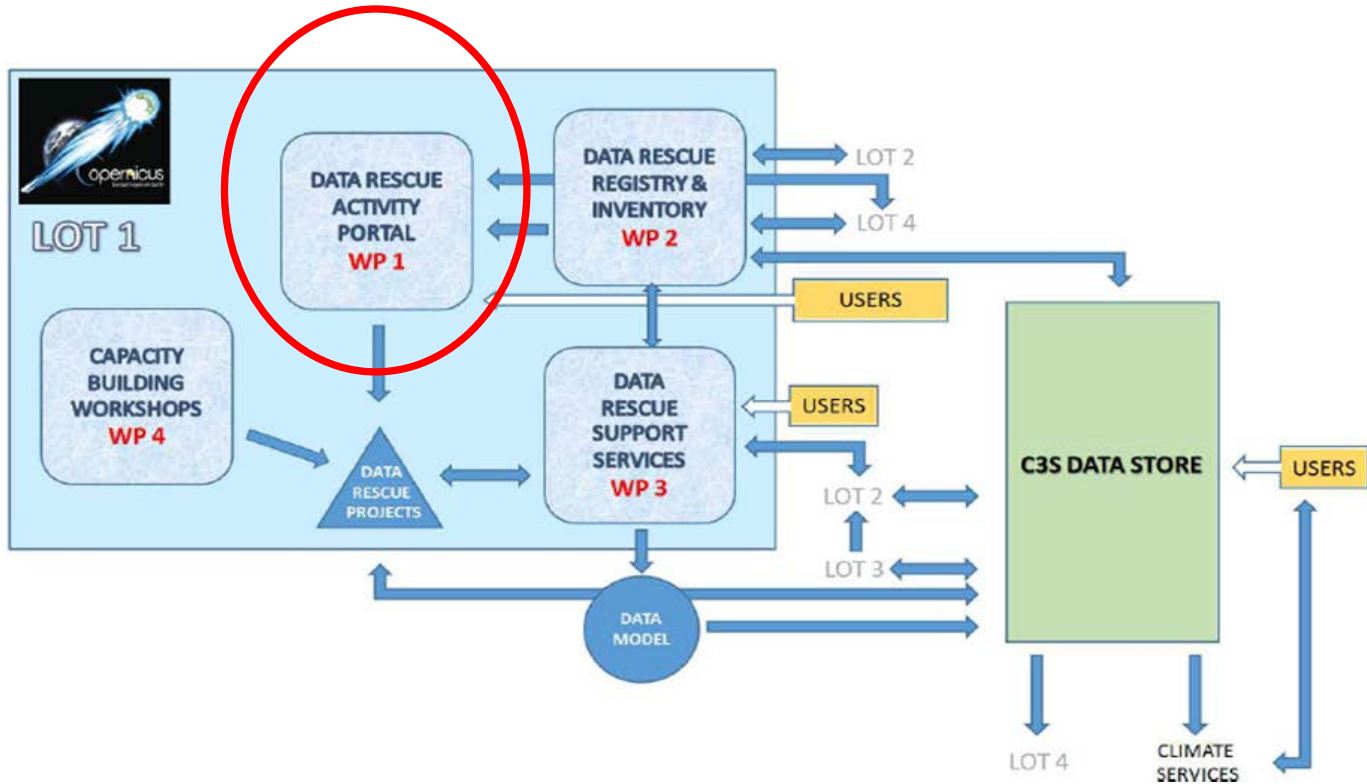
The C3S Data Rescue Service will:

- run online portal with data rescue activity information and metadata of past, current and planned climate data rescue projects;
- provide a wide range of data rescue tools;
- run capacity building workshops.



Climate Change

The C3S Data Rescue Activity Service





Climate
Change

The C3S Data Rescue Activity Portal

C3S Data Rescue Activity Portal is similar to I-DARE Portal (but different lay-out), i.e.

- present + possible future activities
- only general activity info
- user uploadable (after registration)
- guidelines, documentation, tools, software
- explorable, searchable, robust

plus



Climate
Change

The C3S Data Rescue Activity Portal

plus

- past (finished or stopped) activities
- upload facility of digitized data to C3S Climate Data Store
- synchronization with I-DARE portal (daily, one-way)



Climate
Change

The C3S Data Rescue Activity Portal

Portal-in-progress available at <https://drs-beta.bopen.eu/>

(definitive URL will be <http://datarescue.climate.copernicus.eu/>)

Copernicus Europe's eyes on Earth

Climate Change Service

HOME MAP PROJECTS LSO UAO ABOUT FORUM

Log in

C3S Data Rescue Metadata Service portal - beta version

Lon/Lat: 52° 24' 00" N 0° 34' 12" W
LAKENHEATH RAF

C3S Data Rescue Service Portal

The Service

The C3S Data Rescue Service Portal is a web-based user-updatable system to coordinate and facilitate global data rescue activities. It provides searchable activity information and metadata on past, current, and planned data rescue projects, as well as tools, software, and guidelines to facilitate all stages of the data rescue process.

Current tools

Overlays

- Country boundaries
- Land Surface Observations
- Upper Air Fixed Platforms
- I-DARE records



Climate Change

Interactive global map of data rescue activities (green dots)

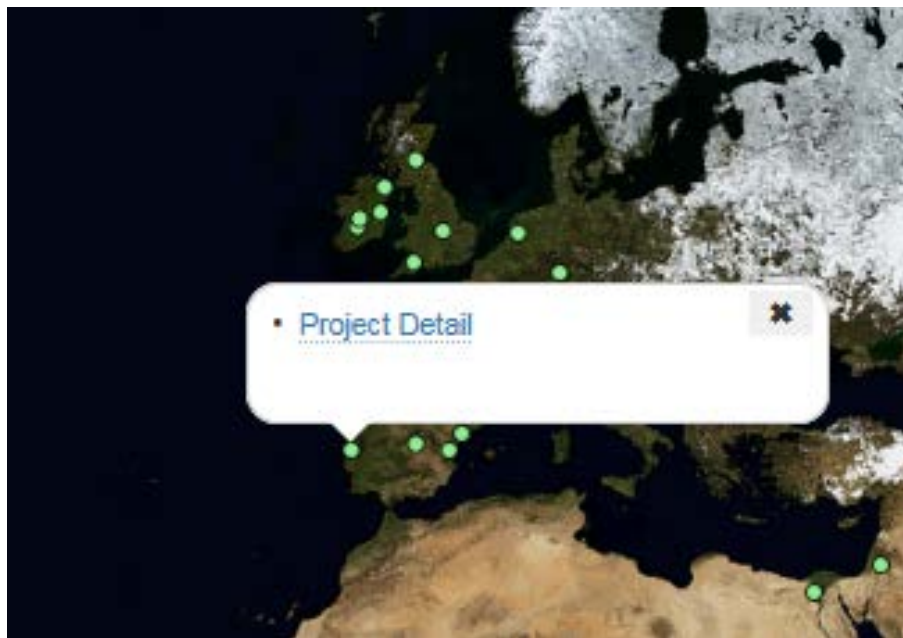
The screenshot displays the website interface for the C3S Data Rescue Activity Portal. The browser address bar shows the URL <https://drs-beta.bopen.eu/map>. The navigation menu includes links for HOME, MAP, PROJECTS, LSO, UAO, ABOUT, and FORUM. The main content area features a satellite-style map of the world with numerous green dots indicating data rescue activities. A legend titled 'Overlays' is visible on the right side of the map, listing 'Country boundaries', 'Land Surface Observations', 'Upper Air Fixed Platforms', and 'Projects'. A 'Project Detail' popup window is also present on the map. The website header includes the Copernicus logo and the Climate Change Service logo.



Climate
Change

The C3S Data Rescue Activity Portal, <https://drs-beta.bopen.eu>

Clicking on a green dot...





Climate
Change

The C3S Data Rescue Activity Portal

...provides the project's activity information on the I-DARE portal

The screenshot shows a web browser displaying the I-DARE portal page for ERA-CLIM2 Portugal. The page features the I-DARE logo, navigation links, and a 'Data Factsheet' sidebar. The main content area contains text about the project's mission to digitize and rescue climate data.

ERA-CLIM2 Portugal

ERA-CLIM2 finances the rescue and digitisation of upper air and surface data (as well as maritime) to feed the new 20th Century Reanalyses being built by the ECMWF. The Portuguese partner of ERA-CLIM2 is imaging and digitising 20th century sub-daily data in Portugal, Madeira and Azores, as well as in the former Portuguese colonies of Angola, Mozambique, Guiné-Bissau, Cape Verde, São Tomé, Macau (China), Goa (India) and East Timor, both for surface and upper air data. Additional digitisation is being performed for Chilean sub-daily surface (1950-1958) and maritime data (1860-1900, 1955-1957), as well as pressure data for South China Sea stations. Moreover the older Spanish upper air data of Madrid, Barcelona, La Coruña and Canary Islands (1912-1916) is being typed for

Data Factsheet

WMO member state:
Portugal

Contact information:
Maria Antónia Valente
Instituto Dom Luiz / FFCUL
Rua da Escola Politécnica, 58
1250-102 Lisbon
Portugal
Email address:



WP2 C3S Data Rescue Service Registry

Climate
Change

The
searching
tool allows
the Metadata
Inventories
to be
browsed and
searched by
Save the
search
results in
a CSV
file.

Opemicus Europe's eyes on Earth

Climate Change Service

HOME MAP LSO UAO

Log in

LSO

Home

Station name Country Series start/end Start Date → End Date

ID	Country/Region	Station Name	Start Record Year/Month/Day	Data Owner Link/Contact	Map
1000001	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000002	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000003	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000004	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000005	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000006	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000007	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000008	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000009	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000010	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000011	Portugal	Lisboa/Geofisico	1863-12-01	mavalente@fc.ul.pt	≡
1000012	Portugal	Lisboa/Geofisico	1941-01-01	mavalente@fc.ul.pt	≡
1000013	Portugal	Lisboa/Geofisico	1941-01-01	mavalente@fc.ul.pt	≡
1000014	Portugal	Lisboa/Geofisico	1941-01-01	mavalente@fc.ul.pt	≡

ECMWF Copernicus Europe's eyes on Earth

European Commission



Climate Change

How to provide input to the portal?

https://drs-beta.bopen.eu/users/register

The International Data Rescue ... Create new account | drs

File Edit View Favorites Tools Help

Suggested Sites internet explorer favorite... internet explorer favorite... internet explorer favorite... internet explorer favorite... Facilitate Synonyms, Facili... Web Slice Gallery

Opernicus Europe's eyes on Earth Climate Change Service

HOME MAP PROJECTS LSO UAO ABOUT FORUM

Log in

Log in Create new account Reset your password

Create new account

Home

Email address *

A valid email address. All emails from the system will be sent to this address. The email address is not made public and will only be used if you wish to receive a new password or wish to receive certain news or notifications by email.

Username *

Several special characters are allowed, including space, period (.), hyphen (-), apostrophe ('), underscore (_), and the @ sign.

Picture

 Browse...

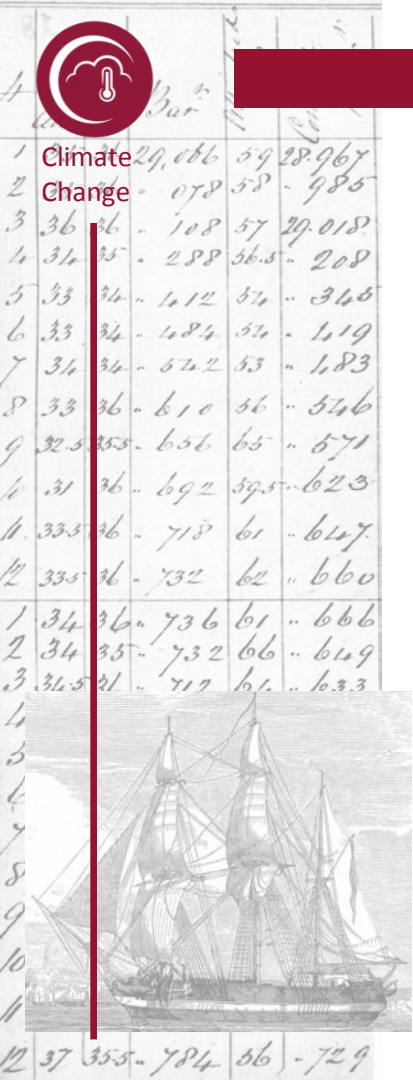
Your virtual face or picture.
One file only.
2 MB limit.
Allowed types: png gif jpg jpeg.

Contact settings

EN 12:30 22-8-2018



Climate
Change



Stimulating potential providers

- National focal points on data rescue appointed via WMO.
- Two short PR video's will be made, for directors and climate managers of national meteorological services and other institutes.
- Stimulating I-DARE users and projects to provide additional general activity info and metadata.
- **Stimulating you!**

Thank you for your attention