NDACC Data Host Facility

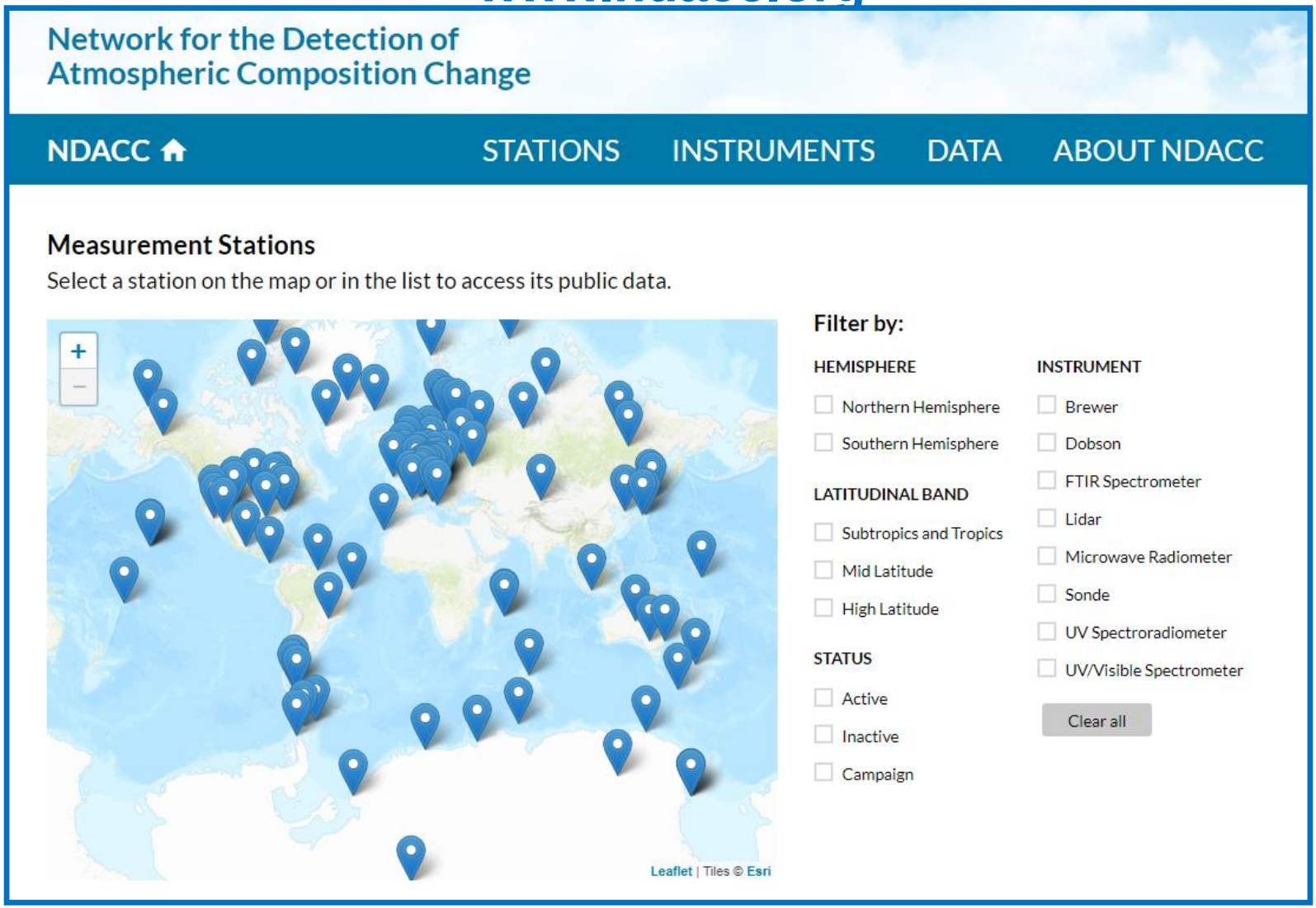
- NDACC Website
- Data and Services at NASA LaRC
- Data Submission Status
  - Continuing and Campaign stations
  - RD submission
  - Data Retrieval Report
  - FTIR WG Documentation Status
- Data License and Data Versions

Jeannette Wild (UMD/ESSIC & NOAA/NESDIS)
Ali Aknan, Crystal Gummo (SSAI & NASA LaRC)
Gao Chen (NASA LaRC)

NDACC Website

NDACC Web Pages

www.ndacc.org



NDACC Web Pages

www.ndacc.org

Move of NDACC web pages:

January 2022: notification that web resources at NOAA soon to end

→ **Decision to move web pages in entirety to NASA LaRC**
Initial deadline August 17, 2022, extended 3 months.

Completed October 4, 2022

- Upgrade to Drupal 9
- Re-style each webpage
- Repair missing/broken content
- Determine position of webpage within LaRC environment
- Port of web content to LaRC and set up in test environment
- Readiness review
- Security scan
- Broken link scan
- Promote to ndacc.larc.nasa.gov and make public
- Create NASA identity for J. Wild to be able to manage content
- Repoint www.ndacc.org

NDACC Web Pages

www.ndacc.org

Move of NDACC web pages:

Huge debt of thanks to all who worked evenings and weekends to make this happen:

- **Ada Uzoma**, CPC/ERT (original developer of current pages): did Drupal 9 upgrade and re-styling of pages, repair of broken / missing content.

- **Crystal Gummo**, LaRC/SSAI: Managed dates and deadlines, installed website at LaRC, prepared reports for Readiness review and countless other tasks.

- **Ali Aknan**, LaRC/SSAI: at a moment's notice found location for SC Resource pages, and implemented

- **Mike Shook, Gao Chen** and rest of NASA/LaRC team for all the behind the scenes help, guidance and patience.

NDACC Web Pages

www.ndacc.org

Consequences:

- Content of webpages are unchanged except for a couple of new features never fully implemented in former website.
- Any link you have including ndaccdemo.org is no longer valid.
- New location is ndacc.larc.nasa.gov
- Best practices: Always refer to www.ndacc.org which is fully durable. Do not use deep links especially in anything you cannot later modify (ie a publication). Best to say for example:

  "For information on NDACC protocols see www.ndacc.org > DATA > Protocols"

NDACC Web Pages – A Brief Tour

Station Page

Quick access navigation to other stations

Stations

- N.H. High Latitude
- N.H. Mid Latitude
- N.H. Subtropics and Tropics
  - Izaña, Tenerife, Spain
  - Mauna Kea, HI, United States
  - Hilo, HI, United States
  - Mauna Loa, HI, United States
  - Altzomoni, Mexico
  - San Jose, Costa Rica
  - Paramaribo, Suriname
  - Tarawa, Kiribati
- S.H. Subtropics and Tropics
- S.H. Mid Latitude
- S.H. High Latitude
- Ship-Based

Mauna Loa, HI, United States

Latitude: 19.54° N
Longitude: 155.58° W
Elevation: 3397 msl

Status: Active

Website(s):
Station Page

Station Representative(s):
Brian Vasel
Chief of Observatory Operations
NOAA ESRL Global Monitoring Laboratory
Colorado
USA

NDACC Measurements at the Mauna Loa, HI, United States Station

Instrument	Status	Period	Parameter	Affiliations	Data Link	Metadata
Dobson D076	Active	1963–present	Ozone	NOAA/ESRL	Ames, HDF	Metadata, Summary
Lidar Nd-Yag	Active	1994–present	Aerosol, Temperature, Water Vapor	NOAA/ESRL	Ames *.5bl	Metadata, Summary
Lidar Rayleigh/Raman/DIAL	Active	1993–present	Aerosol, Ozone, Temperature	JPL	Ames, HDF	Metadata, Summary

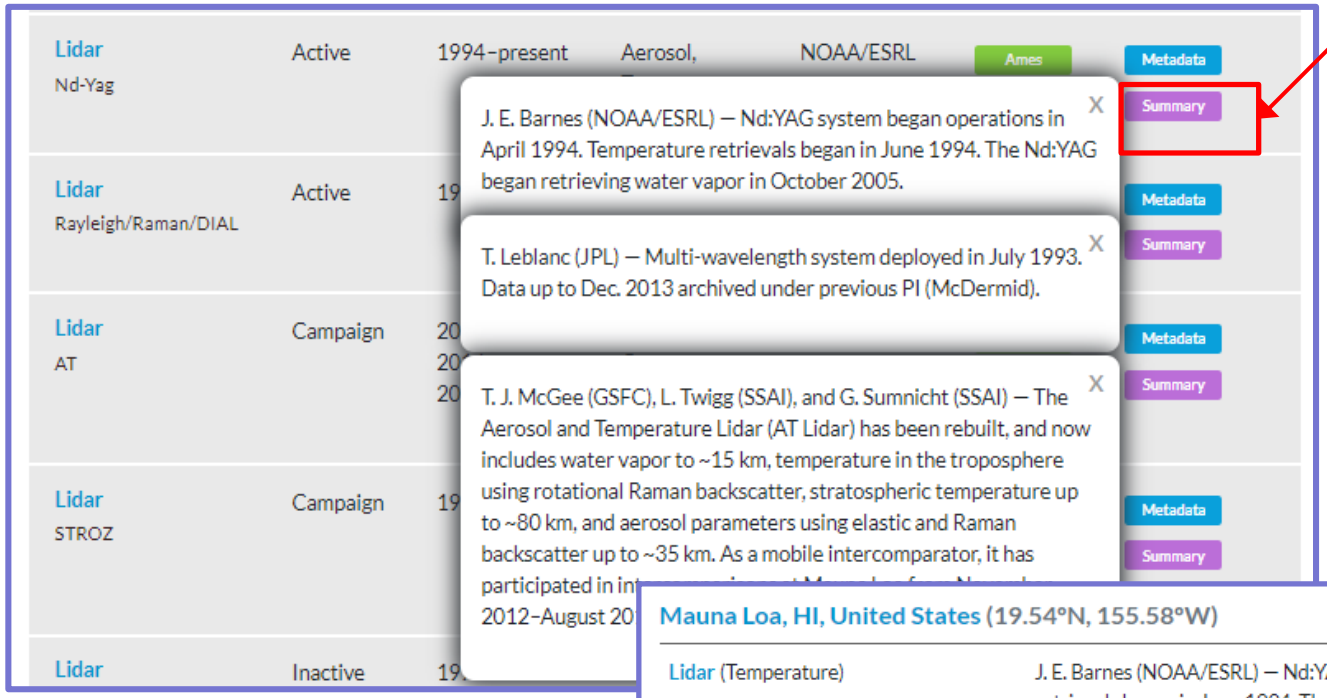
Data links

Documentation links

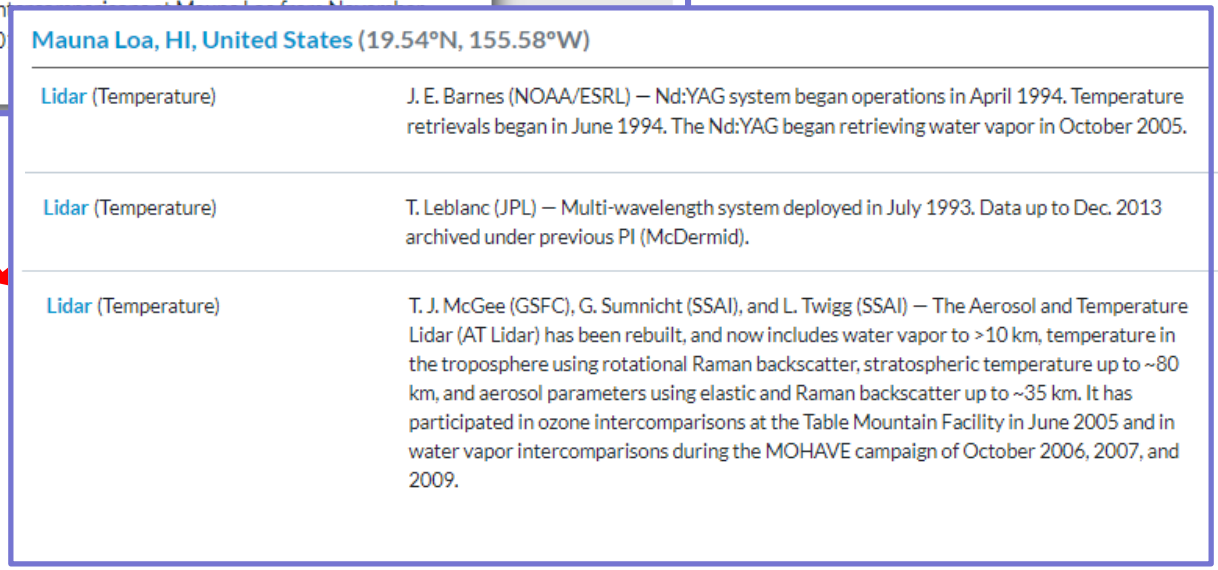
NDACC Web Pages – A Brief Tour

M&A Directory

Click for M&A Text



Same text appears in the online M&A Directory

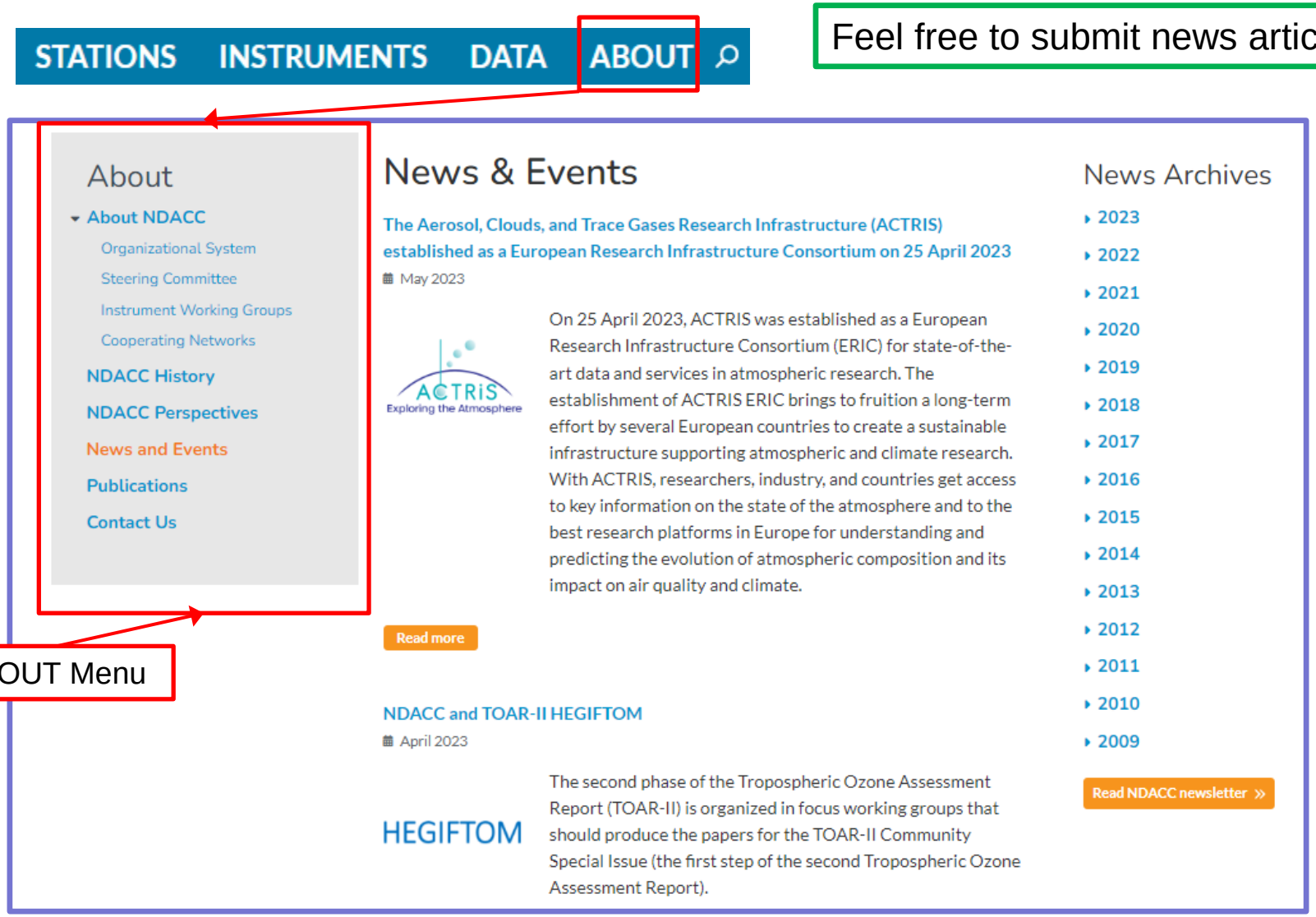


Either can be checked for noting necessary changes on annual Site Report to the Steering Committee

NDACC Web Pages – A Brief Tour

News Pages

Feel free to submit news articles.

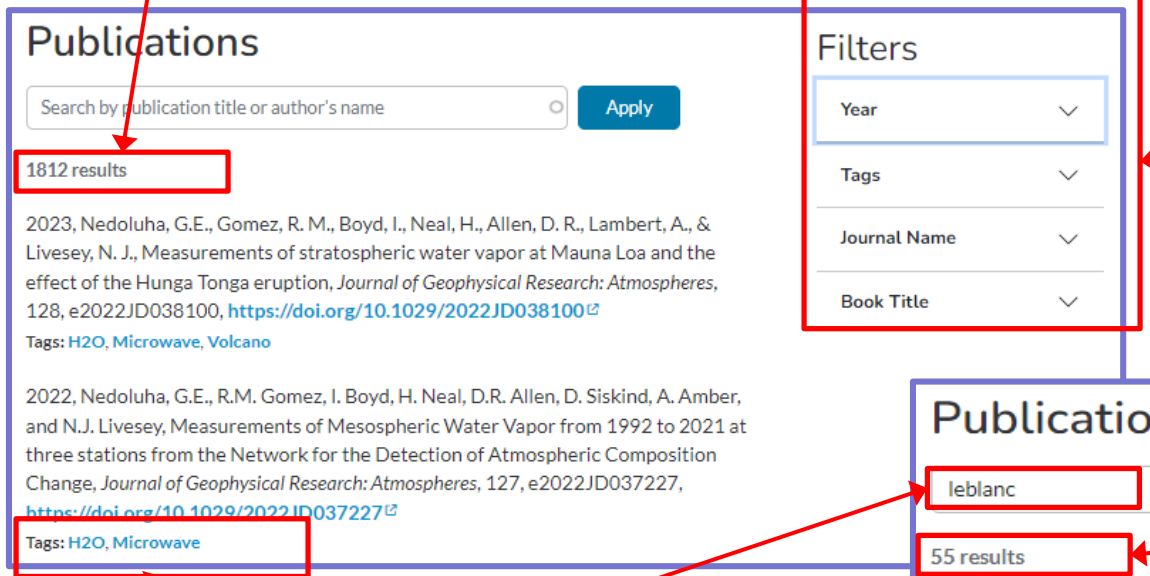


ABOUT Menu

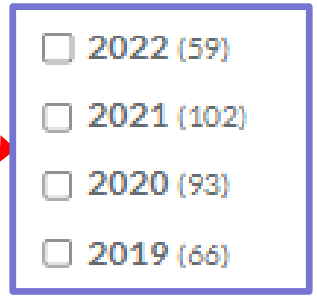
NDACC Web Pages – A Brief Tour

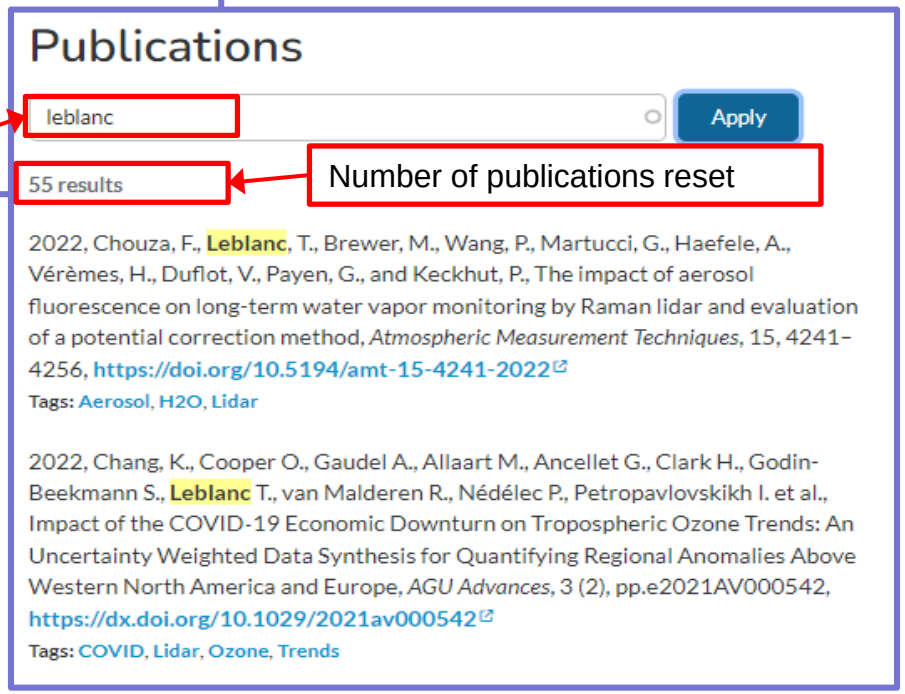
Publications Pages – New Feature

Total number of publications



- Drop down for filters
- Shows number of each entry





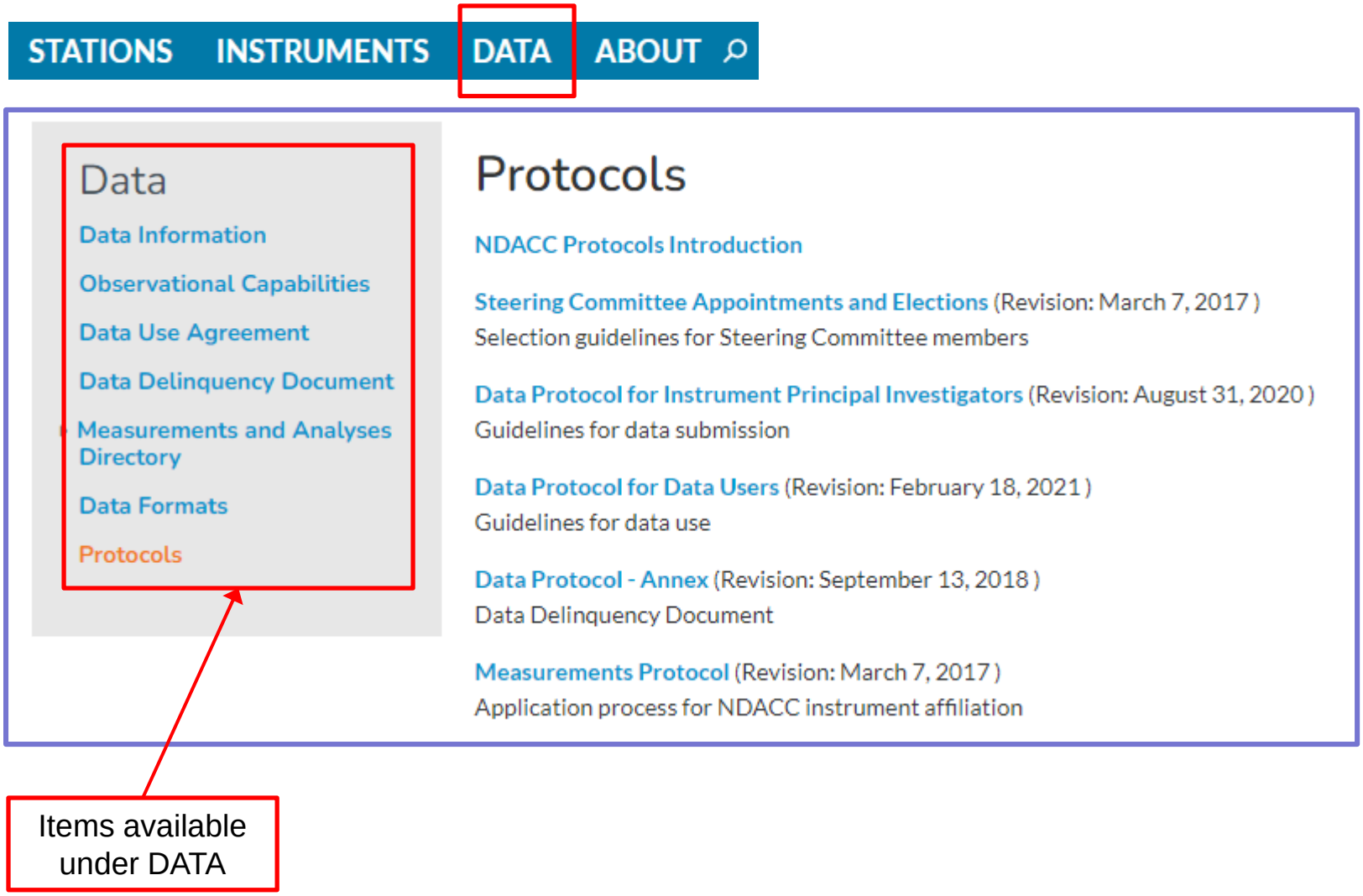
Number of publications reset

Tags

Search by Author name

- Useful for preparing Site Report to Steering Committee
- In Site report list missing publications and corrections.
- Don't forget Tags

NDACC Web Pages – A Brief Tour
Data Pages



Data and Services at LaRC

NDACC DHF Transition – NOAA/CPC to NASA LaRC

NDACC DHF transition phases

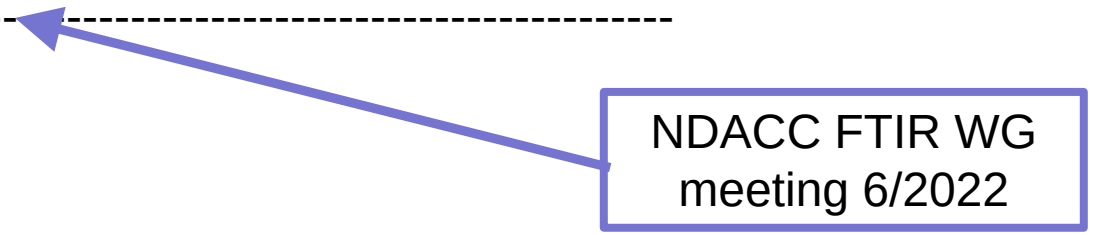
Phase 1 – duplicate DHF functionality at LaRC

- Format check & Mirror of data at CPC: **COMPLETE summer 2020**
- Data ingest: **COMPLETE 5/1/21**
- Data download: **COMPLETE 5/1/21**
- External mirrors and downstream databases, metadata sharing: **COMPLETE 12/31/21**

Phase 2 – Establish full data access tool sets at LaRC

- Enable NDACC data tools: **COMPLETE 4/1/2022**

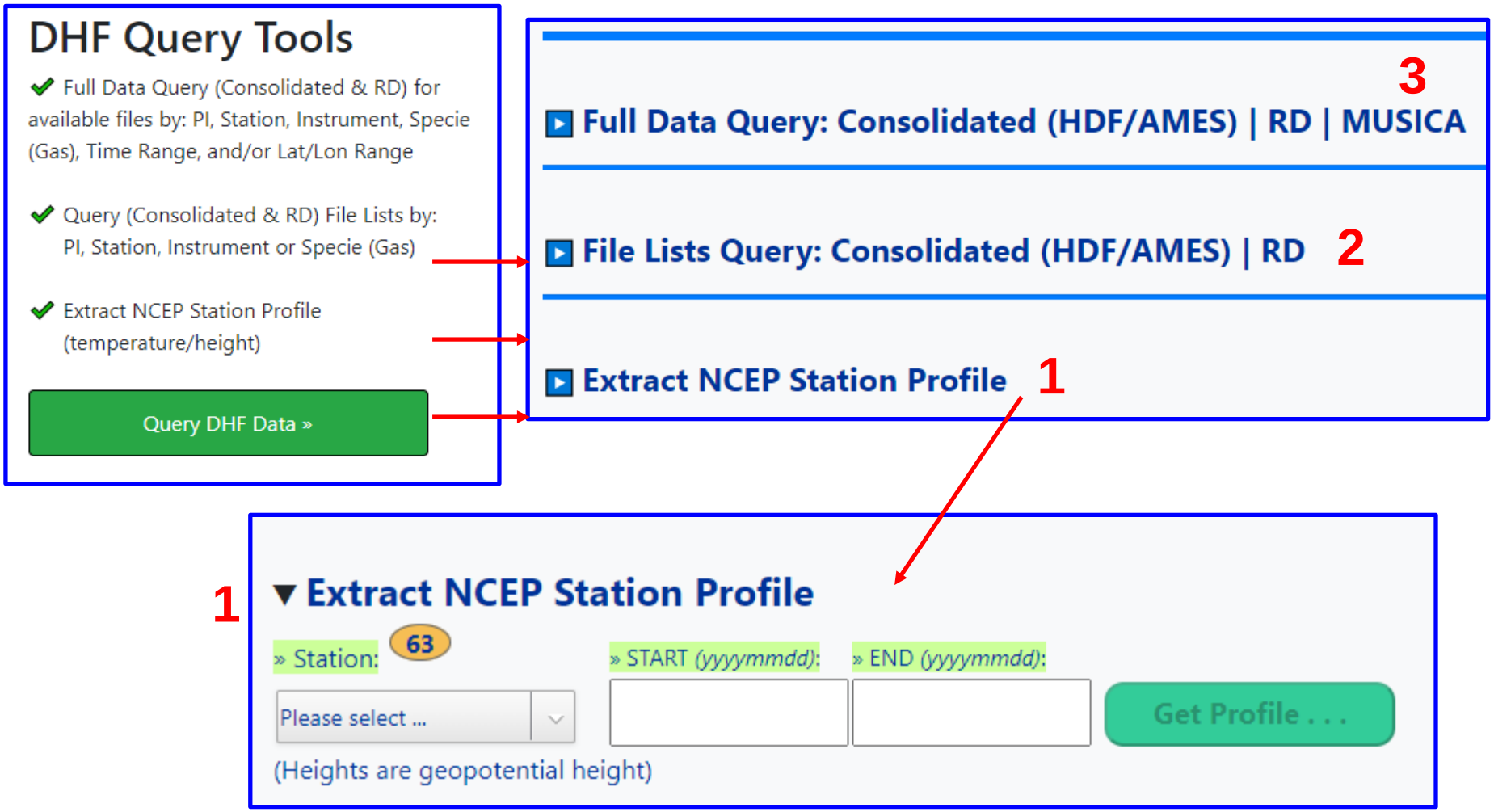
NDACC DHF shut down at CPC 4/13/2022. All data ingest, ftp public data, tools access are no longer available at CPC.



NDACC DHF – Accessing Data – Query Tools

https://www-air.larc.nasa.gov/missions/ndacc/

LaRC Tools: reproduces tools at ndsc.ncep.noaa.gov/pi – now disabled
This toolset is fully available to the public, not just to NDACC PIs/Data providers



NDACC DHF – Accessing Data – Query Tools – Lists

https://www-air.larc.nasa.gov/missions/ndacc/

2 **File Lists Query: Consolidated (HDF/AMES) | RD**

Search for full lists by:
PI
Station
Instrument
Species

See every file from the PI (Station, Instrument, Species)

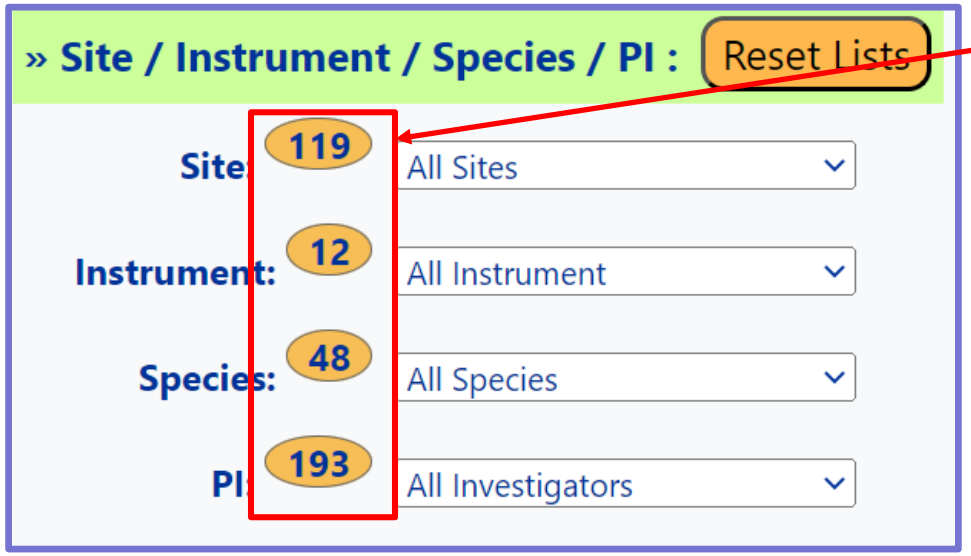
```
**********************************************************************************************
AMES data
**********************************************************************************************


----------------------------------------------------------------------------------------------
Station              PI Name              Instrument          Specie(gas)
----------------------------------------------------------------------------------------------
IZANA                BLUMENSTOCK T.       FTIR                TOTALCOL        : Total = 102
----------------------------------------------------------------------------------------------
Data available from 1999-03-01 to 2007-12-31
Last archival date: 2008-05-16
iztc0001.blf         2005-09-23
iztc0002.blf         2005-09-23
iztc0003.blf         2005-09-23
iztc0004.blf         2005-09-23
iztc0005.blf         2005-09-23
iztc0006.blf         2005-09-23
iztc0007.blf         2005-09-23
iztc0008.blf         2005-09-23
iztc0009.blf         2005-09-23
iztc0010.blf         2005-09-23
iztc0011.blf         2005-09-23
iztc0101.blf         2005-09-23
iztc0102.blf         2005-09-23
```

Totals

NDACC DHF – Accessing Data – Query Tools – Full Query

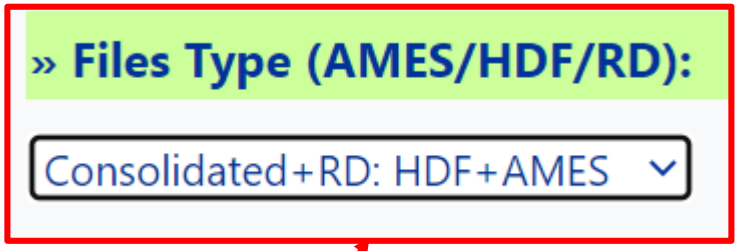
https://www-air.larc.nasa.gov/missions/ndacc/

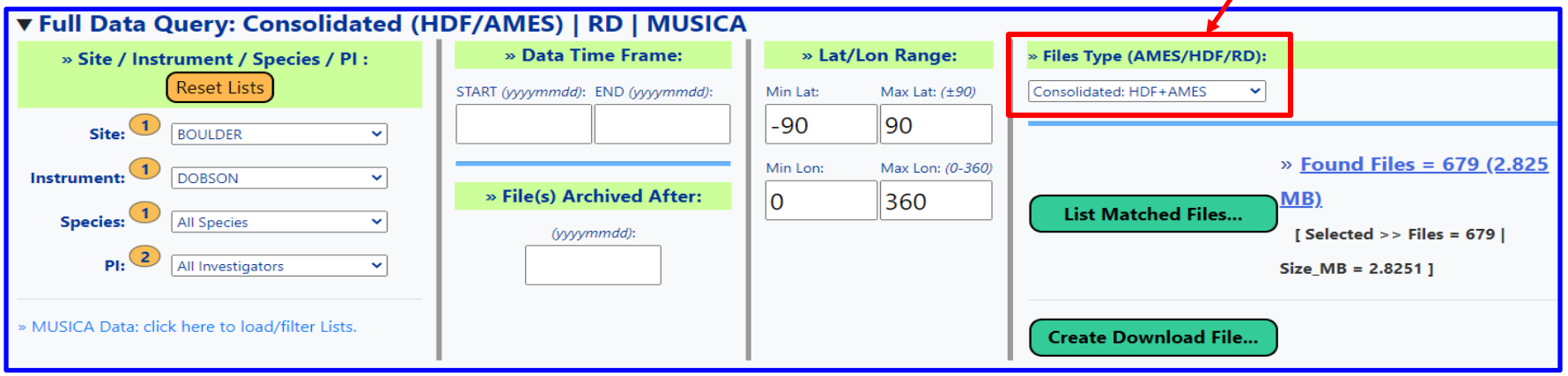
3 **Full Data Query: Consolidated (HDF/AMES) | RD | MUSICA**



Counts change dynamically when selections made

Must select something in this box



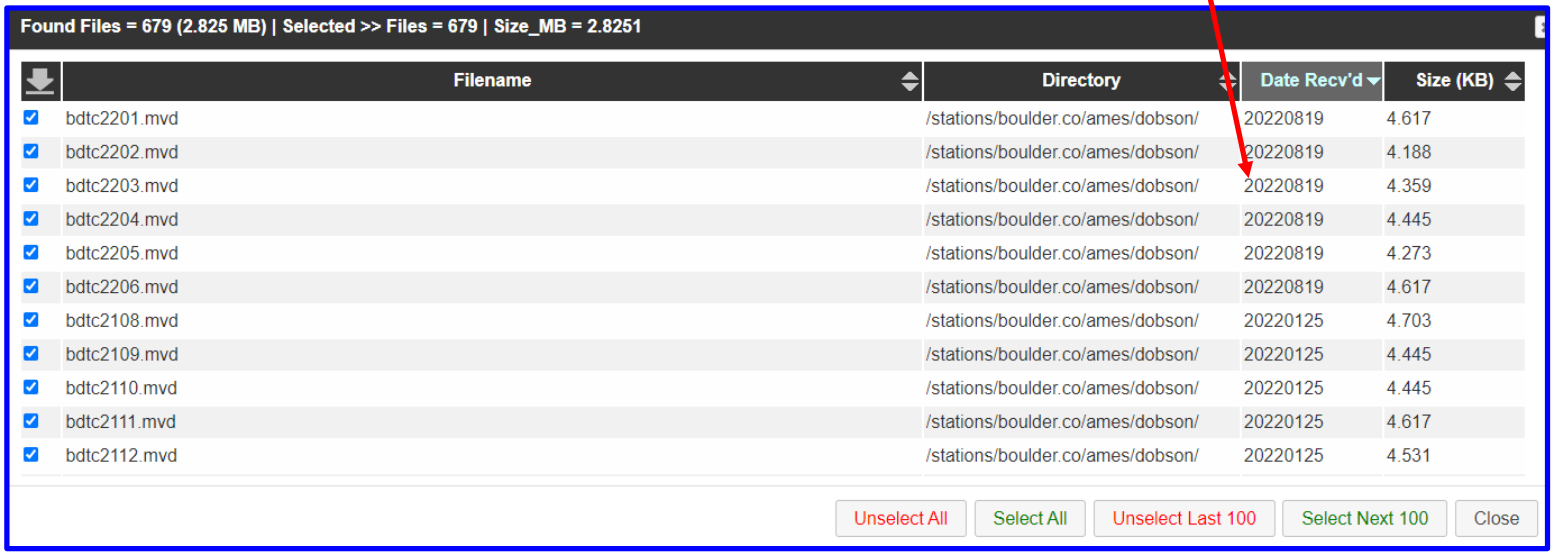


NDACC DHF – Accessing Data – Query Tools – Full Query

https://www-air.larc.nasa.gov/missions/ndacc/

3 **Full Data Query: Consolidated (HDF/AMES) | RD | MUSICA**

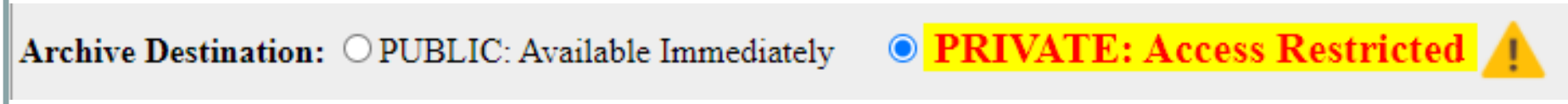
Can select individual files, or full set and created a zipped download file.



NDACC DHF – Common mistakes in Data Transfer

Public vs. Private

- LaRC DHF allows PI to choose public/private per submission.
- Default is private (once public, not reversible).
- Where's my data – it's not on the public directory listing?
- Choose carefully.



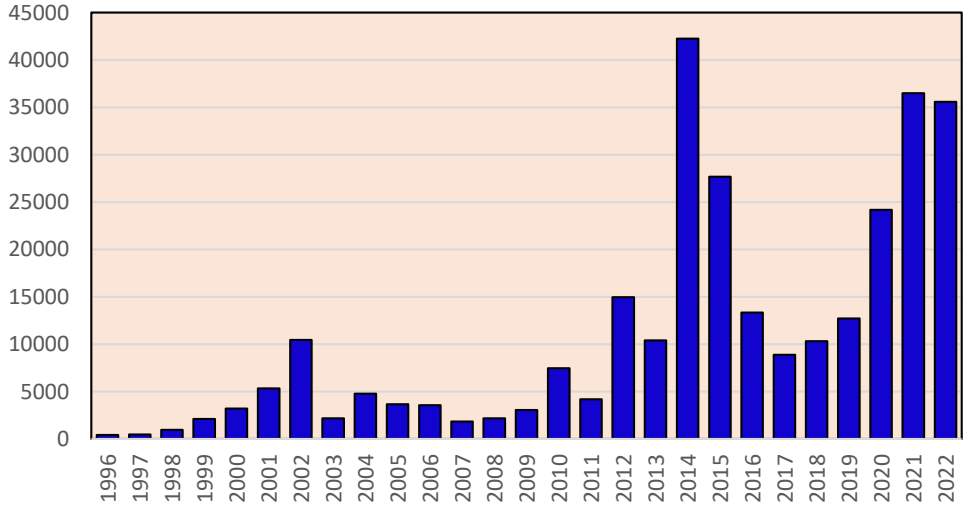
Account not linked to dataset submitted

- Data set exists in the DHF, but an account owner did not add dataset to list it will submit.
- Update account profile to add dataset.

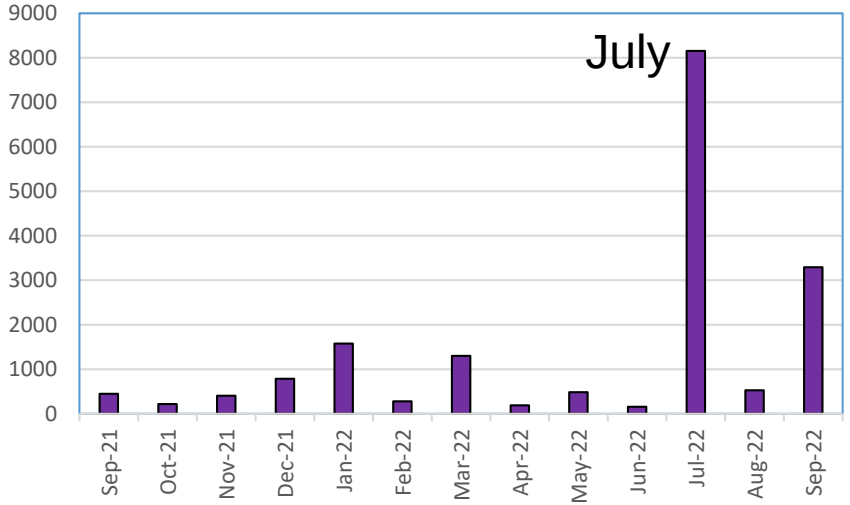
Data Submission Status

NDACC Data Archiving

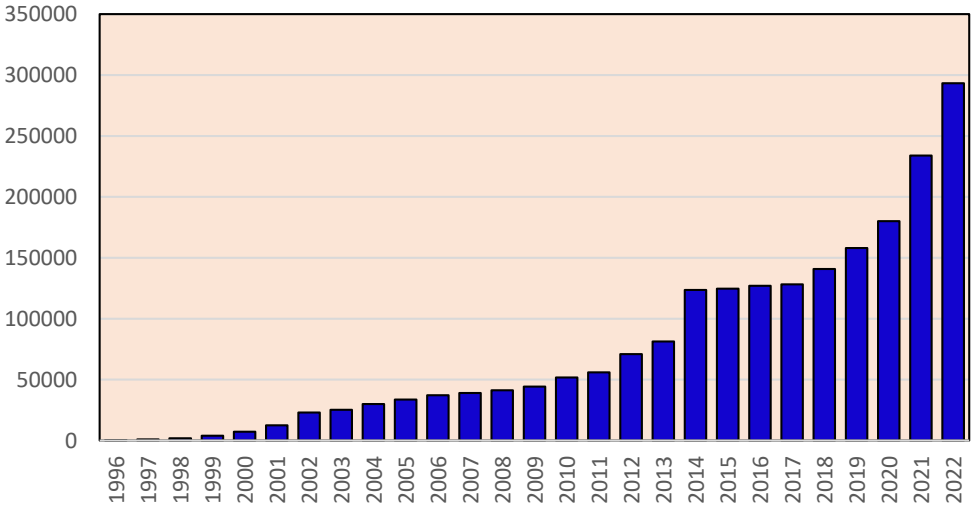
Number of New Files Submitted to NDACC



Monthly File Ingest (2022)



Number of Files in NDACC Database



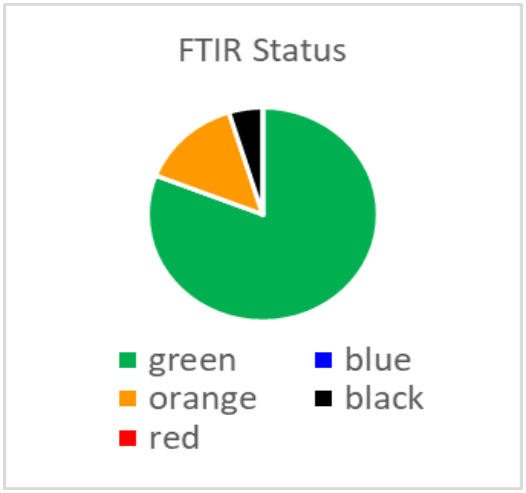
Number of files				
2018	2019	2020	2021	2022
140834	158018	180041	233850	292956

178 **Active** Long Term Measurements as defined by the M&A Directory

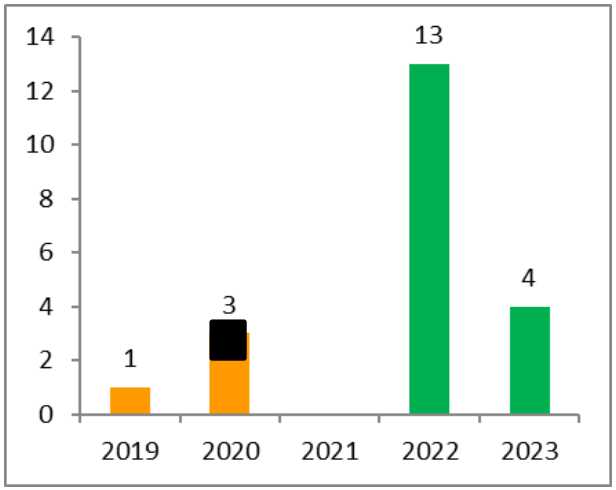
DHF Partners and Downstream Databases

- CEDA – (was BADC) Has mirrored NDACC DHF since 1991. Is retaining all data mirrored so far, but not reorganizing codes to mirror DHF at LaRC, https://www.ceda.ac.uk/
- NILU/EVDC – Full mirror NDACC DHF
- CAMS-27 – Financially supports specific PIs for RD data with increased data format standards https://cams27.aeronomie.be/, https://atmosphere.copernicus.eu/
- NORS/GEOMON – Predecessors to ACTRIS, https://nors.aeronomie.be/index.php/nors-validation-server
- ACTRIS – Copies NDACC metadata, NDACC data for ACTRIS PIs, https://actris.nilu.no
  Note tool for HDF to NetCDF (CF conversion)
- ECMWF/C3S – Copy (with PI explicit consent) of data for use at C3S – MOU signed July 2021
- WOUDC – Copy of file metadata for search engines. Has copied data in past, https://www.woudc.org
- GAWSIS – Copy/Coordination of metadata for search engine, https://gawsis.meteoswiss.ch/GAWSIS – NDACC now is identified as a 'Contributing Network'
- DCIO – Copy of file metadata for search engines
- AVDC – Copy of file metadata for search engines
- BIRA mirror – data for internal use at BIRA

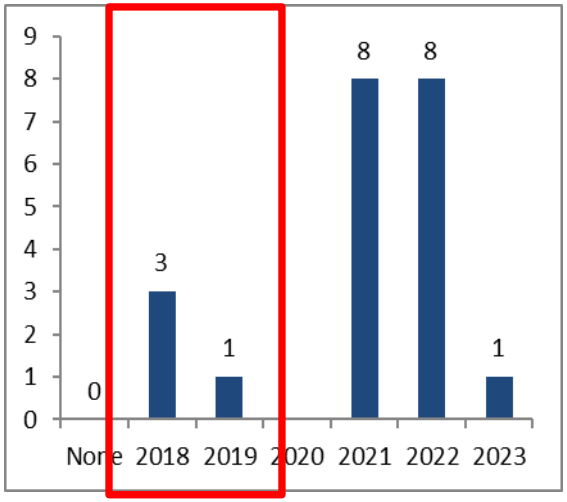
FTIR Data Submission Status
Continuing Measurements – Highlights



Data End Dates



Metadata File Dates



Data Submission
- All 21 stations now submitting in HDF.
- **ORANGE** are **Eureka, Harestua and Maido** with system issues.
- **BLACK** is **Toronto** with archival in 2022, but data only to 2020.

Metadata Files
- **All sites are submitted. 17 are reasonably up to date.**
- The three files dated 2018 and the file dated 2019 should be updated.

Site Reports
- All stations submitted site reports for the 2022 SC meeting – thank you.

IRWG Data Submission Status – Continuing Measurements (6/6/23)

Site / PI	Ames	HDF	Instrument name (HDF)	Last archive date	Comments
Eureka / Strong	96 – 06	06 – 20	utoronto001	2021	
Ny Alesund / Notholt	92 – 09	02 – 22	awi001	2023	
Thule / Hannigan	99 – 07	99 – 22	ncar001	2023	
Kiruna / Blumenstock	96 – 07	96 – 22	kit001	2022	
Harestua / Mellqvist	94 – 20	09 – 20	cth002	2021	
St Petersburg / Polykov		09 – 23	spbu001	2023	
Bremen / Notholt	02 – 11	00 – 23	iup001	2023	
Zugspitze / Sussmann	95 – 05	95 – 23	ifu001	2023	
Jungfraujoch / Mahieu		86 – 22	ugl001, 002	2023	
Toronto / Strong		02 – 20	utoronto002	2022	
Rikubetsu / Nagahama	95 – 04	95 – 22	unagoya001	2022	

KEY: Last Data submitted:

> 2 yrs ago	> 1 yr ago	< 1 yr ago, but not up to date	< 1 year ago & up to date

Extenuating Circumstances

IRWG Data Submission Status – Continuing Measurements (6/6/23)

PI	Ames	HDF	Instrument name (HDF)	Last Archive Date	Comments
Tsukuba / Morino		10 – 22	nies001	2023	New as affiliated
Boulder / Hannigan		10 – 22	ncar003	2023	
Izana / Schneider	99 – 07	99 – 22	kit002	2022	
Mauna Loa / Hannigan	95 – 07	95 – 22	ncar002	2023	
Altzomoni / Grutter		12 – 22	unam001	2022	
Paramaribo / Warneke		04 – 22	awi019 & awi028	2023	
Maido / De Maziere		13 – 19	iasb003	2022	
Wollongong / Jones	95 – 08	96 – 22	uow001 &uow002	2023	
Lauder / Smale	90 – 09	91 – 22	niwa001, 2	2023	
Arrival Heights / Smale	97 – 09	92 – 22	niwa003,4,5	2023	

KEY: Last Data submitted:

Extenuating Circumstances

> 2 yrs ago	> 1 yr ago	< 1 yr ago, but not up to date	< 1 year ago & up to date

IRWG Reported Species in HDF files – change since 2021

Site / PI	C2H6	CH4	ClONO2	CO	HCl	HCN	HF	HNO3	N2O	O3	Other	Improved?
Eureka / Strong	x	x	x	x	x	x	x	x	x	x	x	
Ny Alesund / Notholt	x	x	x	x	x	x	x	x	x	x	x	
Thule / Hannigan	x	x	x	x	x	x	x	x	x	x	x	
Kiruna/ Blumenstock	x	x	x	x	x	x	x	x	x	x	x	
Harestua/ Mellqvist		x			x		X			x		One additional required
St. Petersburg/ Makarova	x	x	x	x	x	x	x	x	x	x		
Bremen / Notholt	x	x		x	x	x	x	x	x	x	x	No change
Zugspitze / Sussmann	x	x	x	x	x	x	x	x	x	x	x	
Jungfraujoch / Mahieu	x	x	x	x	x	x	x	x	x	x	x	
Toronto / Strong	x	x		x	x	x	x	x	x	x	x	No change
Rikubetsu / Nagahama	x	x	x	x	x	x	x	x	x	x		
Tskuba / Morina	X	X	X	X	X	X	X	X	X	X	X	New as Affiliated
Boulder / Hannigan	x	x		x	x	x	x	X	x	X		One additional required
Izana / Blumenstock	x	x	x	x	x	x	x	x	x	x	x	
Mauna Loa / Hannigan	x	x	x	x	x	x	x	x	x	x	x	
Altzomoni / Grutter	x	x		x	x		x	x	x	x	x	No change
Paramaribo / Notholt	x	x		x	x	x		x	x	x	x	No change
Reunion Maido / De Maziere	x	x		x	x	x	x	x	x	x	x	No change
Wollongong / Jones	x	x		x	x	x	x	x	x	x		No change
Lauder / Smale	x	x	x	x	x	x	x	x	x	x		
Arrival Heights / Smale	x	x	x	x	x	x	x	x	x	x		

Each Station / PI reporting all **10** required species is shown in **GREEN**
Each Station / PI reporting with **8-9** required species is shown in **BLUE**
Each Station / PI reporting **7 or less** required species is shown in **RED**

* Changes from 2021 in Blue **X**

RD Submissions – From NDACC Affiliated Instruments

PI	HDF – Cons	HDF – RD	Comments
Eureka / Strong	06 – 20	3/2018 – 3/2020	RD 2 per month
Ny Alesund / Notholt	02 – 22	7/2014 – 5/2023	RD 1-2 per month
Thule / Hannigan	99 – 22	6/2019 – 4/2023	RD 2-3 per month
Harestua / Mellqvist	09 – 20	3/2018 – 9/2020	RD 1-2 per month
St Petersburg / Polykov	09 – 23	2/2018 – 7/2023	RD 1-2 per month
Bremen / Notholt	00 – 23	7/2014 – 5/2023	RD Daily
Jungfraujoch / Mahieu	86 – 22	11/2020 – 2/2023	RD 1-2 per month
Toronto / Strong	02 – 20	3/2018 – 5/2023	RD 2 per month
Boulder / Hannigan	10 – 22	6/2019 – 5/2023; OCS, HCN in 2010	RD Daily
Mauna Loa / Hannigan	95 – 22	6/2019 – 11/2022	RD 2 per month
Paramaribo / Warneke	04 – 22	1/2018 – 2/2023	RD 1-2 per month
Maido / De Maziere	13 – 19	12/2018 – 10/2022; NO2 2/2014 – 6/2017	RD 1 per month
Lauder / Smale	91 – 22	12/2021 – 5/2023	RD 1 per month
Arrival Heights / Smale	92 – 22	1/2022 – 1/2023	RD monthly

Overlap in RED

** RD Submissions **

Use of RD Directories

- RD directories are a service to NDACC partners.
- RD Data submitted to these directories is **NOT NDACC data**, and does not satisfy data submissions requirements as per Data Protocol for Data Providers.

PI stated reasons for using RD

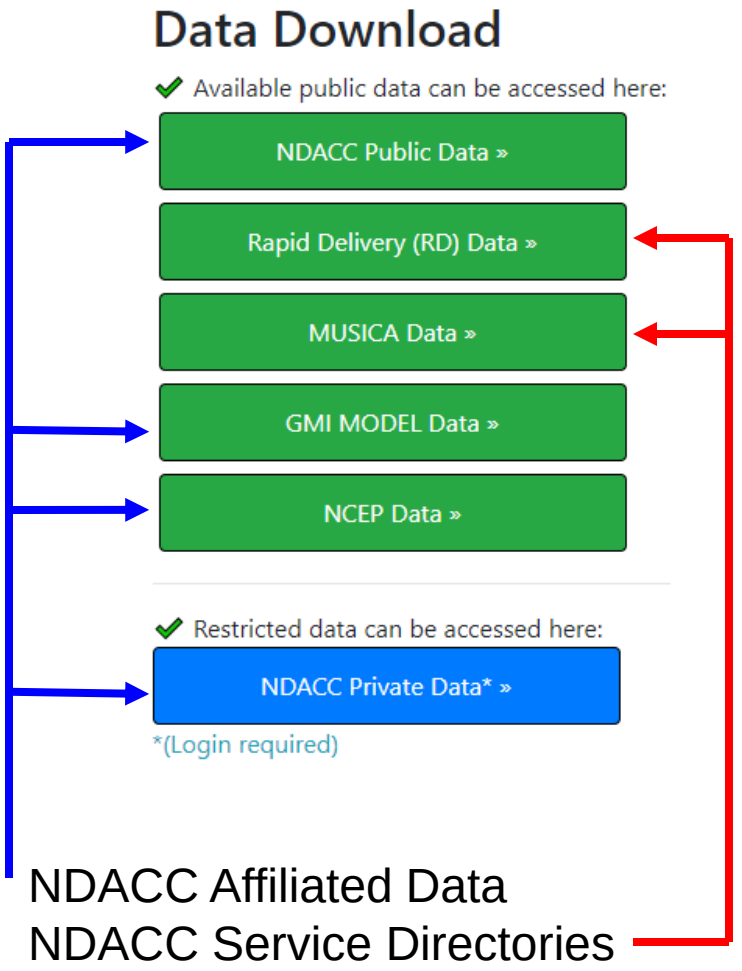
- I have a CAMS obligation to submit RD.
- CAMS is a timeline requirement, not a data type requirement.

Sole reasons to submit data to RD directories

- Data is **not final NDACC verified product** – not up to NDACC standards, has not been validated, is preliminary, etc.
- Data is **not from an NDACC affiliated instrument**, or is not and NDACC affiliated data product (offaxis for UVVis).
- Data is **not of standard granularity** (ie submitting fast delivery daily files to be later consolidated to monthly or yearly files and resubmitted to Consolidated Directories).

RD replacement policy:

As soon as the standard verified version is available the **RD data will be removed** and the fully verified version with be archived in the NDACC DHF.



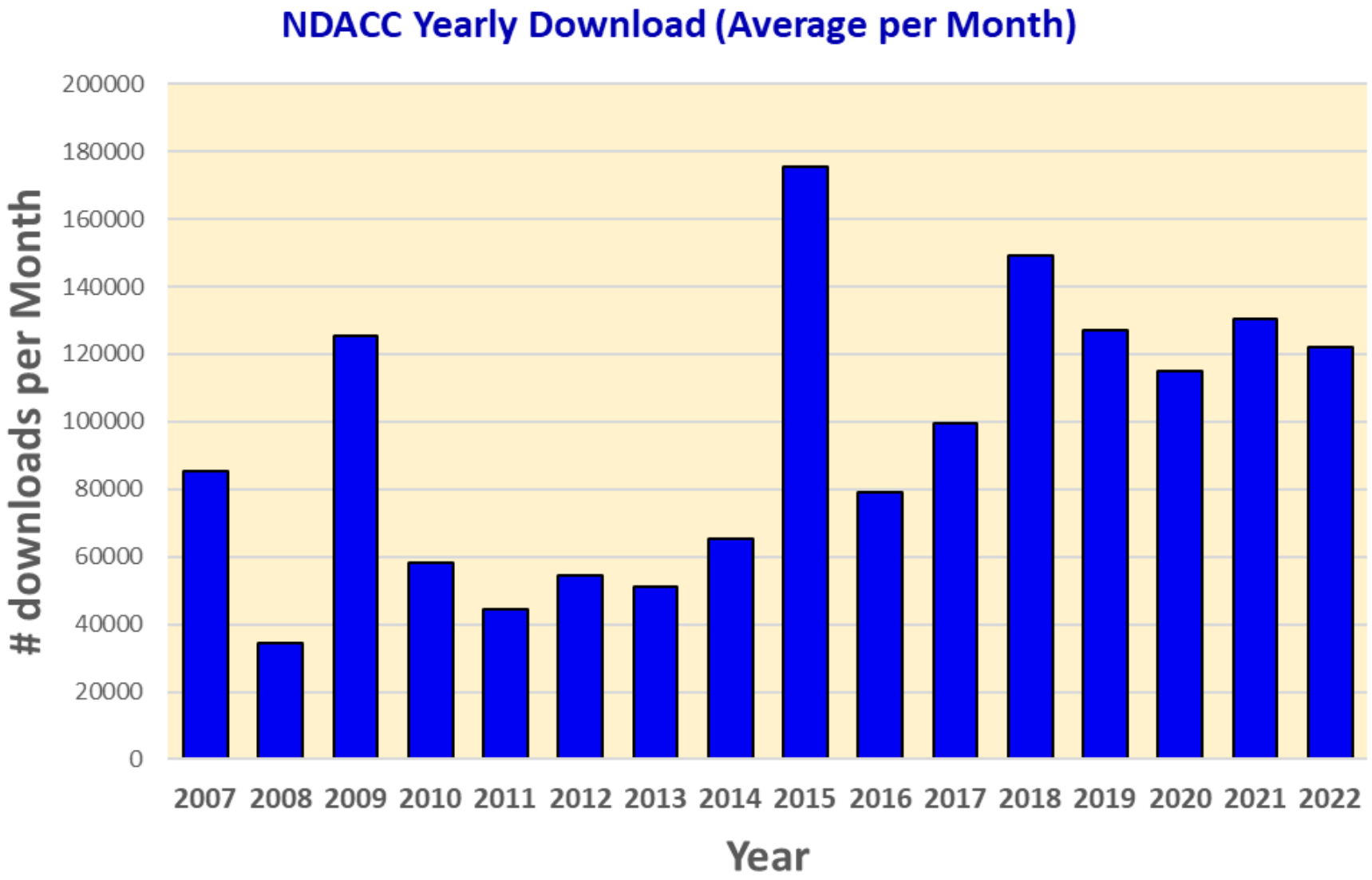
Data Retrieval
File Counts

Top 2022 Data Users:

NDACC DHF at CPC			NDACC DHF at LaRC		
Rank	**Count**	**Institution**	**Rank**	**Count**	**Institution**
1	15930	NASA, GSFC	1	139437	University of Bremen, Germany
2	13888	Chalmers U of Tech., Sweden	2	130378	Telecom, Norway
3	11548	Univ. Pierre&Madame Currie, France	3	45575	ECMWF, UK
4	11101	China Education and Research Network, Nanjing, China	4	35191	NASA Reston, VA
5	5948	Telecom (Bouygues), France	5	24782	Telecom, Belgium
6	9393	Univ. Leichester, UK	6	22379	Telecom, Germany
7	3968	Chou Peiuuan Foundation Internet Center, Beijing, China	7	18217	Ecole Polytechnique, France
8	3704	KIT, Germany	8	12617	NASA Reston, VA
9	2879	OHP, France	9	10517	Telecom, Germany
10	1661	Univ. de la Reunion, France	10	8380	Univ. Pierre&Madame Currie, France

Top 2021 Data Users: NASA, GSFC (708113), Univ. Science/Tech, China (50042)
Top 2020 Data Users: Univ. Science/Tech, China (206037), University of Toronto (134922)
Top 2019 Data Users: Chinese Acad of Science(249590), Rutherford Appleton (152526)
Top 2018 Data Users: BIRA, Belgium (263667), NASA GSFC (257647)
Top 2017 Data Users: Telecom, Netherlands (403659); Obs Midi-Pyrenees (35447)
Top 2016 Data Users: Univ. Leeds (120528); US EPA (111587)

NDACC Data Retrieval



NDACC Data Retrieval

* CPC ends 4/13/2022

# files in database			# file transfers					
Instr.	# files		CPC Web (Private)		CPC Anon ftp		LaRC Anon ftp	
	2021	2022	2021	2022	2021	2022	2021	2022
Bksnde	426	426			281	6	355	4514
Brewer	2702	2797	1		9661	3288	1540	8937
Dobson	9425	9968			10634	279	7525	41836
Dustsonde	375	375			350	0	293	1909
FTIR	7620	8351	215	2	32542	13423	5565	71112
Lidar	33858	38217	5168	1139	93698	12649	71682	165513
Mwave	36965	39540	1182		22579	5079	119290	84277
O3sonde	48607	49835	10	4	101633	5783	98859	338225
Spt UV	3791	3838	7		5983	32	2847	22187
UV Vis	88786	138241	7		167758	13656	210324	175068
WVsonde	1315	1368	1		2097	168	1127	7033
Total	233850	292956	6591		447216	54363	519407	920611

FTIR WG Documentation Status

More About Documentation

Visibility: With redesign of NDACC Web Pages the dataset level Metadata Files AND M&A Directory entries are now easily discoverable by the user.

Each station has a page at www.ndacc.org

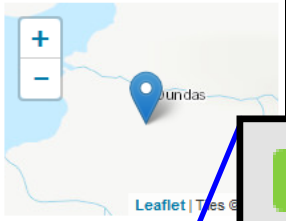
Thule, Greenland

Latitude: 76.53° N
Longitude: 68.74° W
Elevation: 30-220 msl

Status: Active

Website(s):
Station Page

Station Representative(s):
Dr. Niels Larsen
Danish Climate Center
Danish Meteorological Institute
Copenhagen, Denmark



Ames | Metadata | HDF | Summary

NDACC Measurements at the Thule, Greenland Station

Instrument	Status	Period	Parameter	Affiliations	Data link	Metadata link
FTIR Spectrometer Bruker	Active	1999–present	Column - multiple species, Profile - multiple species	NCAR	Ames, HDF	Metadata, Summary
Lidar	Inactive	1991–1996	Aerosol	U. Rome ENEA	Ames	Metadata, Summary

List of Instruments

More About Documentation

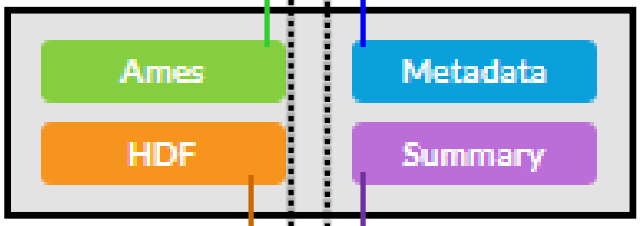
Tabs on left access Data

Index of /ndacc/station/thule/ames/ftir/

[parent directory]

Name	Size	Date Modified
thtc0002.cmf	5.4 kB	12/19/05, 7:00:00 PM
thtc0103.cmf	13.2 kB	12/19/05, 7:00:00 PM
thtc0202.cmf	15.3 kB	12/19/05, 7:00:00 PM

One click to data directories HDF Ames



Index of /ndacc/station/thule/hdf/ftir/

[parent directory]

Name	Size	Date Modified
groundbased_ftir.c2h6_ncar001_thule_19991010t142041z_19991012t140911z_003.hdf	197 kB	10/20/14, 8:00:00 PM
groundbased_ftir.c2h6_ncar001_thule_20000426t171351z_20000921t172709z_003.hdf	170 kB	10/20/14, 8:00:00 PM
groundbased_ftir.c2h6_ncar001_thule_20010309t152916z_20010903t185050z_003.hdf	1.0 MB	10/20/14, 8:00:00 PM
groundbased_ftir.c2h6_ncar001_thule_20020301t142736z_20021005t175314z_003.hdf	1.4 MB	10/20/14, 8:00:00 PM

Tabs on right access Documentation

One click to metadata file

```
File: jh_thule_20160901.txt

Data Set Description:
---- --- -----------
PI                          : James W. Hannigan
Instrument                  : Bruker 125HR Fourier Transform Interferometer
Site(s)                     : South Mountain, Thule, Greenland 76.52N, 68.77W,
                              225masl
Measurement Quantities      : Column Density [molec/cm^2] N2O, O3, HCl, HF, HNO3,
                              CO, CLONO2, CH4, H2O, N2
                            : Volume mixing ratios [vmr] N2O, O3, HCl, HF, HNO3, CO,
                              CH4, H2O


Contact Information:
------- -----------

Name:    James W. Hannigan
Address: NCAR
         POBox 3000
         Boulder, CO USA 80303
Phone:   +01 303 497 1853
FAX:     +01 303 497 1492
Email:   jamesw@ucar.edu


Reference Articles:
--------- ---------

"Network for the Detection of Stratospheric Change Fourier transform infrared
intercomparison at Table Mountain Facility, November 1996", A. Goldman et.al.,
J. Geophys. Res., Vol. 104, No. D23, pp30481-30503, 20 Dec 1999
```

One click to M&A Directory entry

M. Coffey and J. Hannigan (NCAR) – Bruker 120M (0.004 cm 1 resolution) installed at South Mountain in 1999, operating under autonomous control. Also capable of lunar observations. Instrument moved to Building 1971 (1km from previous location at same altitude) in Summer 2011. In May 2015 a new Bruker 125HR FTIR operating with new software control and new solar tracker was installed.

Submit new metadata files and M&A Changes via email to DHF (Jeannette.Wild@noaa.gov).

Metadata Status – Continuing Measurements

Site / PI	File Year at 2023 meeting
Eureka / Strong	2021
Ny Alesund / Notholt	2021
Thule / Hannigan	2021
Kiruna/ Blumenstock	2022
Harestua / Mellqvist	2022
St. Petersburg/ Makarova	2022
Bremen / Notholt	2021
Zugspitze / Sussmann	2018
Jungfraujoch / Mahieu	2022
Toronto / Strong	2021
Rikubetsu / Nagahama	2022
Tsukuba / Morino	2023
Boulder / Hannigan	2021
Izana / Blumenstock	2022
Mauna Loa / Hannigan	2021
Altzomoni / Grutter	2019
Paramaribo / Warneke	2021
Reunion Maido / De Maziere	2018

Current files are in
https://www-air.larc.nasa.gov/pub/NDACC/PUBLIC/meta/ftir

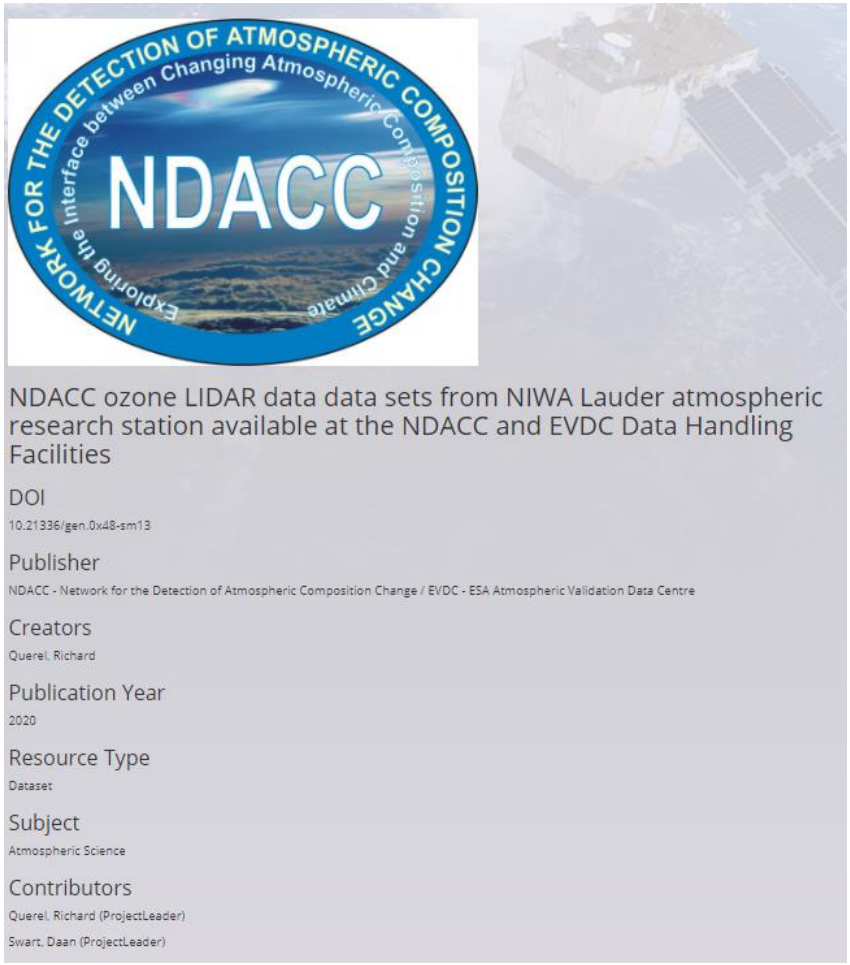
Email updates to
Jeannette.Wild@noaa.gov

Site / PI	File Year at 2023 meeting
Reunion Maido / De Maziere	2018
Wollongong / Jones	2018
Lauder / Smale	2022
Arrival Heights / Smale	2022

DOI, Data License, Data Versions,

DOIs for NDACC data providers are being published by EVDC

- Landing page is at EVDC
- Supply information in headers below including: Data Title, Format, License, Description, etc
- Will link to dataset at the NDACC DHF
- Contact Jeannette Wild for more info
- When created, DOI and license information should be added to data files and metadata files



NDACC ozone LIDAR data data sets from NIWA Lauder atmospheric research station available at the NDACC and EVDC Data Handling Facilities

DOI

10.21336/gen.0x48-sm13

Publisher

NDACC - Network for the Detection of Atmospheric Composition Change / EVDC - ESA Atmospheric Validation Data Centre

Creators

Querel, Richard

Publication Year

2020

Resource Type

Dataset

Subject

Atmospheric Science

Contributors

Querel, Richard (ProjectLeader)

Swart, Daan (ProjectLeader)

Dates

Created: 2020-04-30

Issued: 2020

Data Format

NASA AMES

GEOMS HDF

Licence

http://creativecommons.org/licenses/by/4.0/

Data Policy

In addition to the CC BY 4.0 license, the NDACC Data Use Agreement including publication co-authorship policy must always be respected (see http://www.ndaccdemo.org/data/use-agreement).

Descriptions

The RIVM stratospheric lidar is a differential absorption lidar (DIAL). Since September 2007, it has a Coherent LPXPro 325C XeCl excimer laser, predominantly emitting light pulses in the wavelength 308 nm. A secondary beam (at 353 nm) is generated through Raman conversion in a Hydrogen cell. Subsequently, the system measures the backscatter in these two wavelengths (both measured in near [5% intensity] and far [95% intensity] channels) and at 332 and 385 nm (Raman channels).

Locations

Location: Lauder

Latitude: -45.038

Longitude: 169.684

Funding

NIWA

RIVM

The Dutch Ministry for Environment

The Dutch National Research Program on Global Air Pollution and Climate Change (NOP-MLK)

The Free University of Amsterdam

The University of Twente

ESA

NASA

Download Data

Click this link to access the data in the NDACC Ames format.

** NDACC Ames files included in this dataset are: lao3yymm.swl or lao3yymm.qrl where yymm is the date.*

Click this link to access the data in the NDACC HDF format.

** NDACC HDF files included in this dataset are: groundbased_lidar.o3_niwa001_lauder_yymmddttttttz_yymmddttttttz_002.hdf where yymmdd and ttttt indicate the start and end date and time.*

Data License and Data Versions

Data License: Choose between 3 suggested licenses for NDACC (PIs must decide for their data):

- CC0 (most open – credits not even (legally) required) - in part. for US gov't data
- CC-By-SA (4.0) license (open – but credits required)
- CC-BY-NC-SA license (not open for commercial use)
- When chosen, **Data License information should be added to data files and metadata files**
- Choose carefully. **Know restrictions by a journal** if you are creating DOI for a journal. ESSD for example requires CC-BY (4.0) or less restrictive. Contact your funding organization for guidance.
- Once published, **there cannot be a change** from **less restrictive to more restrictive**.

Data Versions:

- Optional ability to augment DATA_SOURCE to include simple version number
- Optional ability to augment DATA_SOURCE with text descriptor/keyword (WEEKLY, CENTRAL)
- Document at www.ndaccdemo.org/sites/default/files/docs/NDACC_Data_Versioning_2_3_Main.pdf
- Each WG proposes Keywords which will be centrally managed at GEOMS/DHF level.
- Some approved Keyword examples:
  - HIRES (Hi-Res)
  - Monthly
  - GLASS (algorithm name)
  - Can include an algorithm or reprocessing version number.

groundbased_lidar.aerosol_nasa.**jpl002_glass.1.1**_mauna.loa.hi_20040602t063747z_20040602t083820z_001.hdf

Traditional Data Source

Algorithm name (After _)

Reprocessing version number (after .)