EMPA

Materials Science & Technology

GAWSIS (and ET-WDC)

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ET-WDC Meeting, 12-14 May 2010, Environment Canada, Toronto, Canada

Activities since 2009 for ET-WDC

- New web site: http://sites.google.com/site/wmoetwdc
- WIGOS/WIS pilot project
  - Improved XML representation of GAWSIS (cf. doc_4.3)
  - Set-up `geonetwork` server
  - Developed first draft of 'GAWDAP' – data access facilitator
  - Coordination and reporting
    - Progress report (doc_3.1)
    - Evaluation report (doc_3.2)
    - Lessons-learnt report (input to doc_3.3)
- Meetings and presentations
  - CAS-XV, 17-25 Nov 2009, Seoul
  - GCOS Round-table, 27 Jan 2010, Zurich
  - EC-WG WIGOS/WIS-3, 24.-26.3.2010, Geneva

Activities since 2009 for GAWSIS

- Integration of data centres
  - EBAS/EMEP operational, but incomplete
  - NDACC operational, comprehensive
- Discussions launched
  - Procedure for accepting new GAW stations
  - Classification of mobile stations
- Added Features
  - vCards
  - .csv download of lists
  - Overview of global AOD network (draft)

Challenges

- Maintenance of metadata information
  - Responsiveness of station managers
- Identification of metadata items obtained from data centers (vocabularies!)
- Need to decide what stations/programmes to include and establish trusted relationships
- Renewal of GAWSIS architecture

Future Plans (~18 months)

- Include AERONET, SKYNET, EANET if possible
- Migrate GAWSIS to MeteoSwiss
- Improve GAWSIS' capabilities to use and offer web services
- Improve vocabularies
- Improve and extend information on data quality
- Establish GAWSIS as a World Metadata Centre for GAW and DCPC for WIS (as per recommendation by CAS-XV)

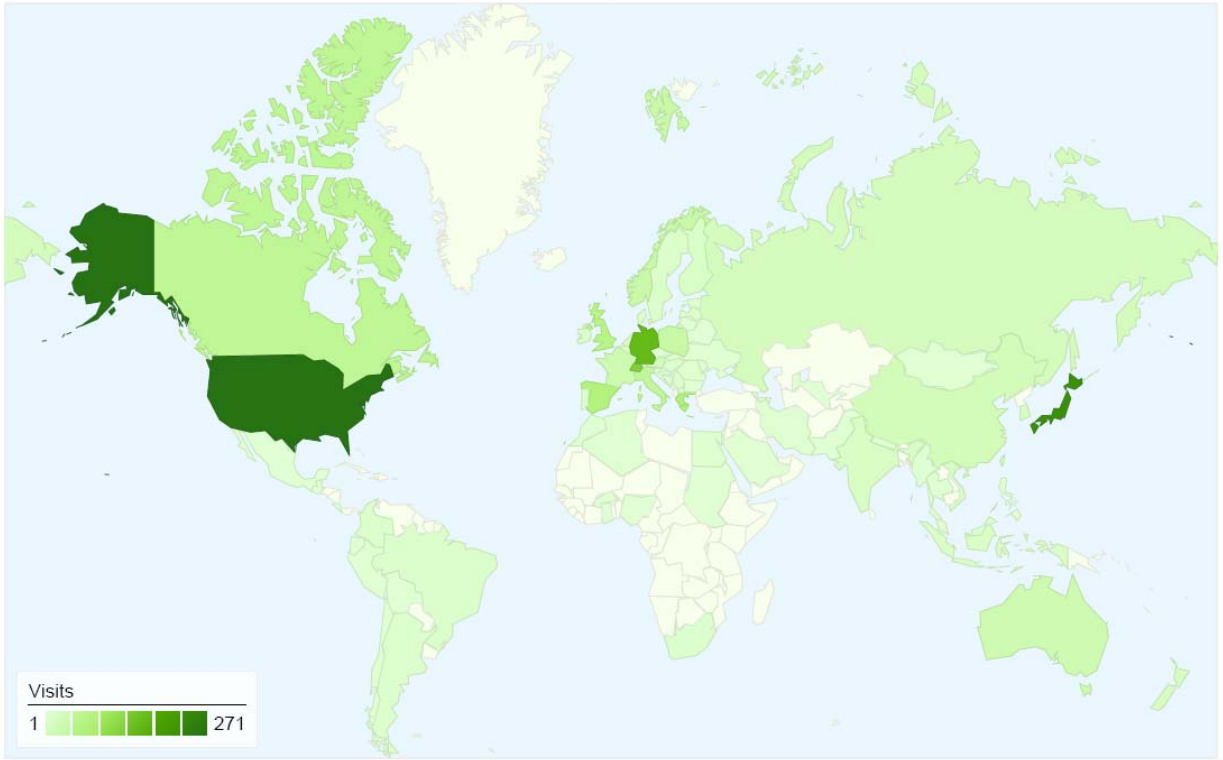
GAWSIS Web Statistics

gaw.empa.ch/gawsis

Map Overlay

Apr 12, 2010 - May 12, 2010

Comparing to: Site

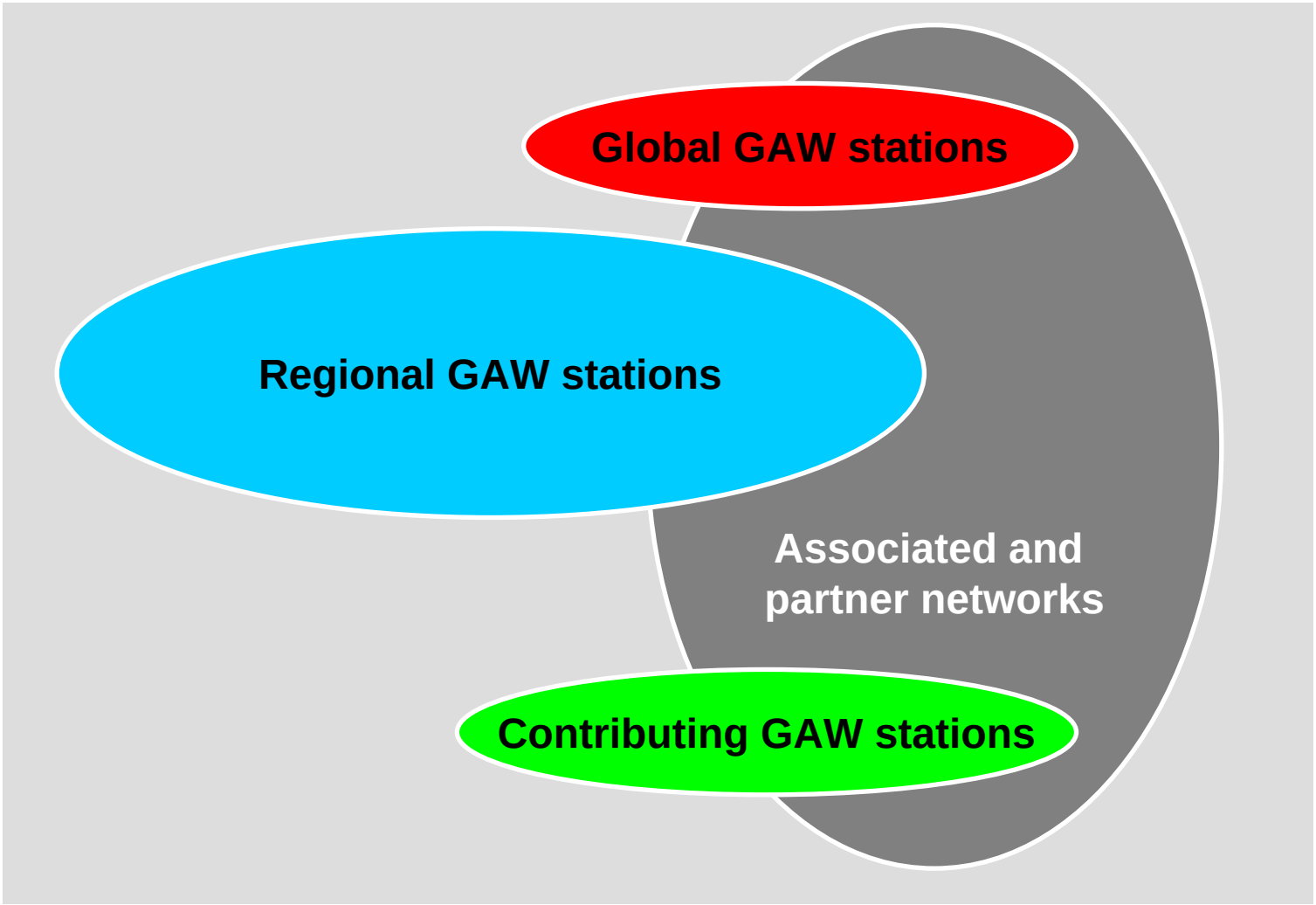


1,558 visits came from 82 countries/territories

Site Usage

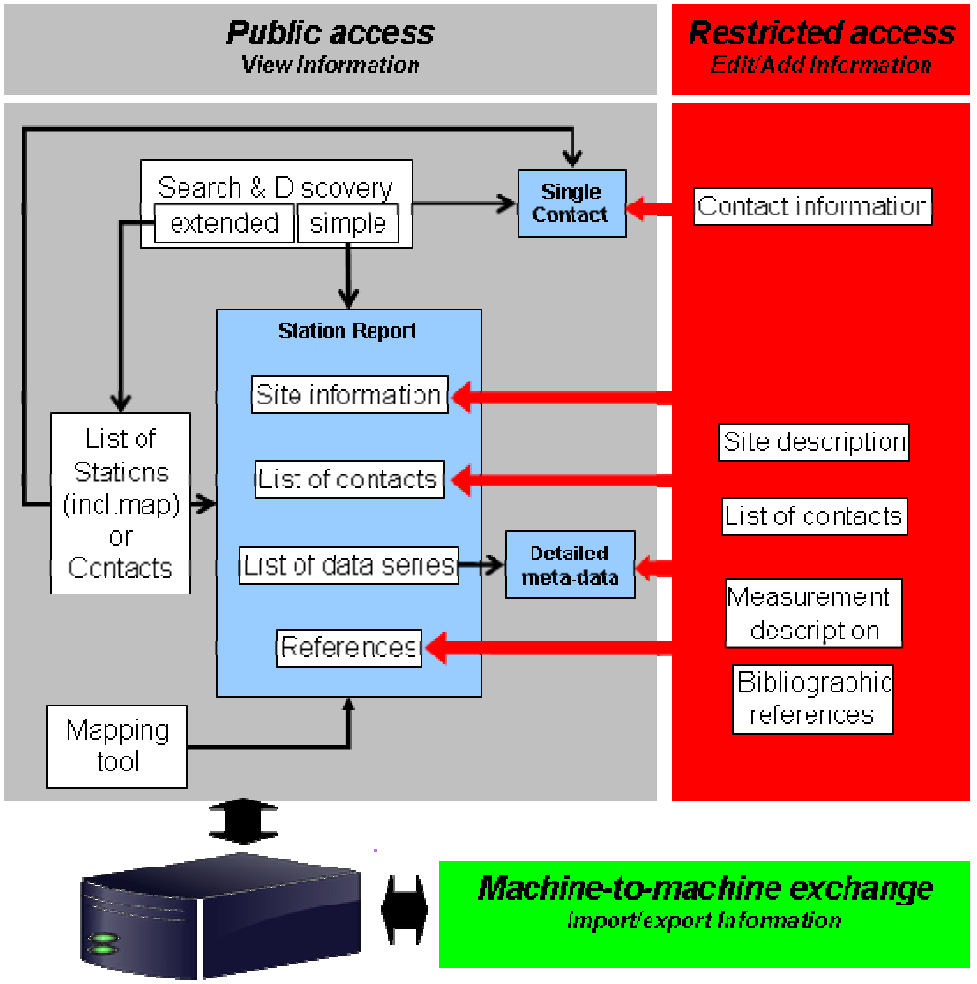
Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
1,558	3.39	00:03:09	50.51%	60.53%
% of Site Total: 100.00%	Site Avg: 3.39 (0.00%)	Site Avg: 00:03:09 (0.00%)	Site Avg: 50.39% (0.25%)	Site Avg: 60.53% (0.00%)

GAWSIS Scope



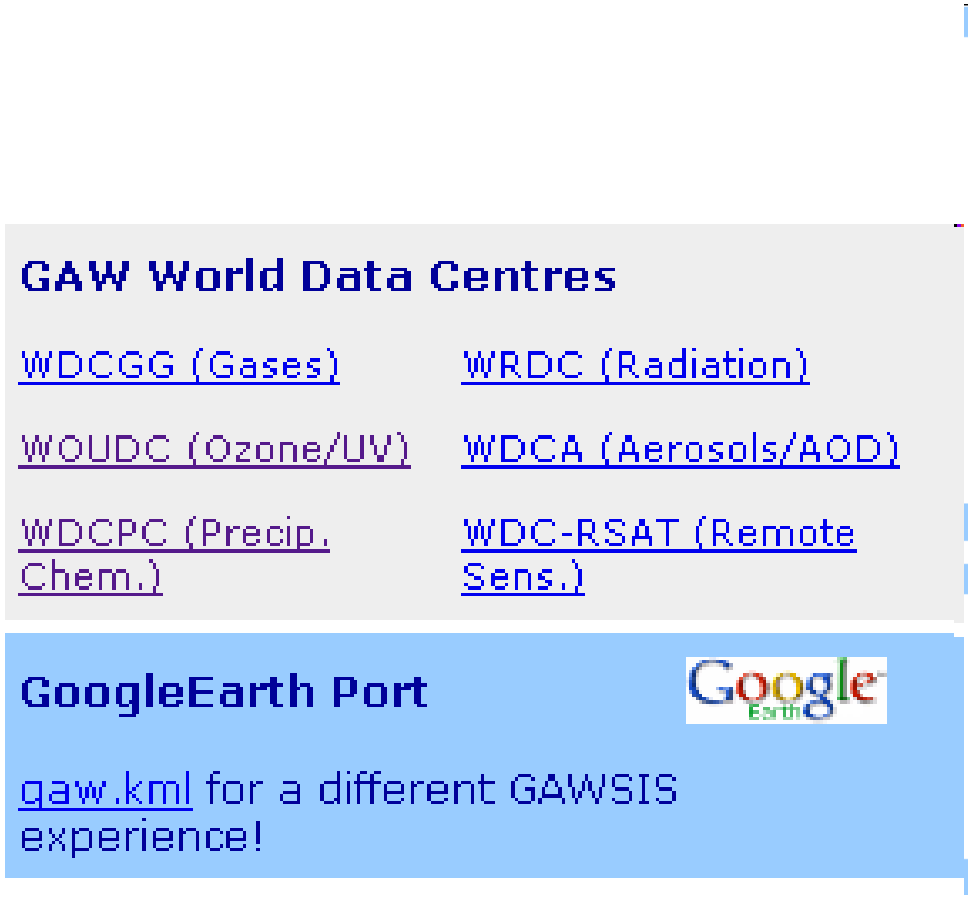
GAWSIS Design Principles

- K.I.S.S. (keep it small & simple)
  - No Flash etc.
  - No plug-ins
  - Little Javascript
- Involve the user
  - Public for viewing
  - Password-protection for editing
- Machine-to-machine metadata exchange
  - Regular updates
- Self-maintaining (well …)



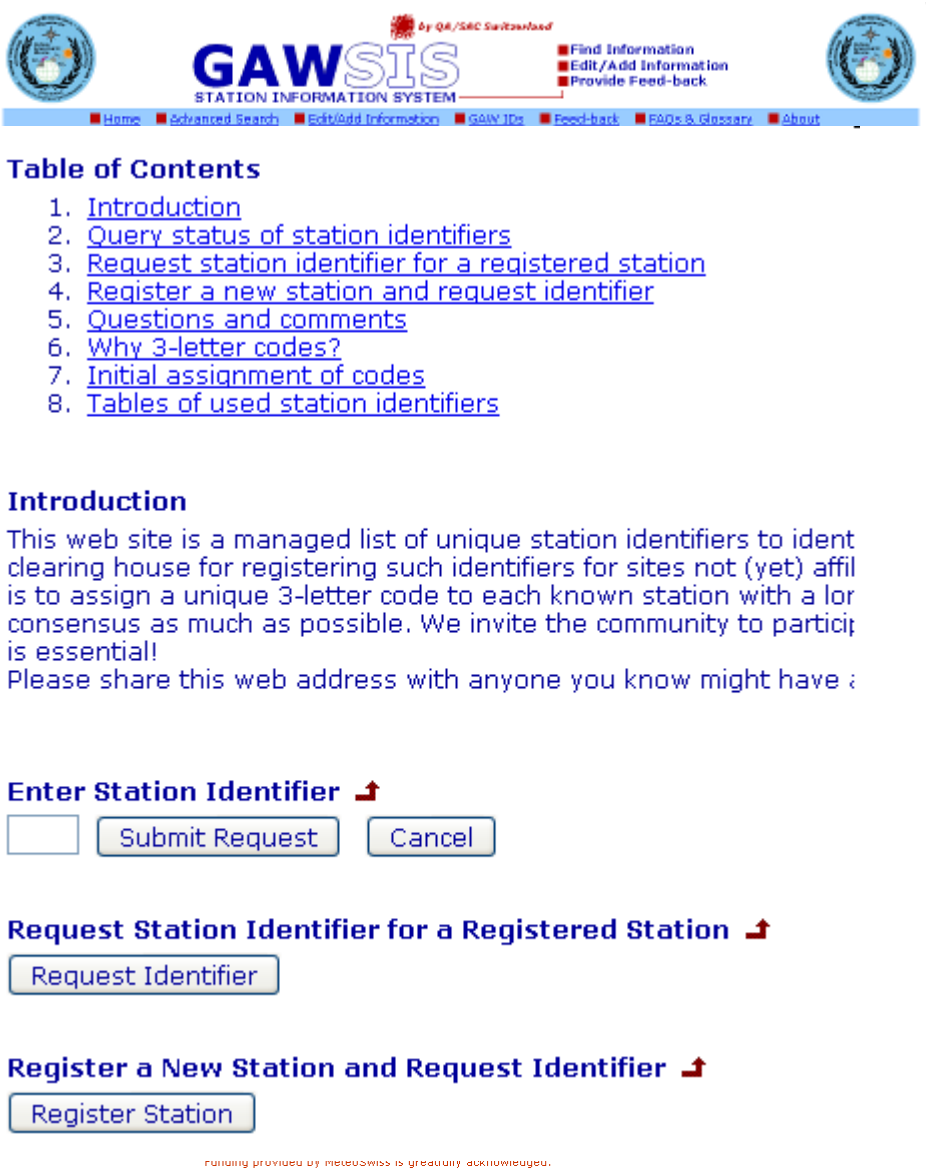
GAWSIS Discovery Tools

- Simple search
- Advanced search
- Links to WDCs
- GoogleEarth™ port

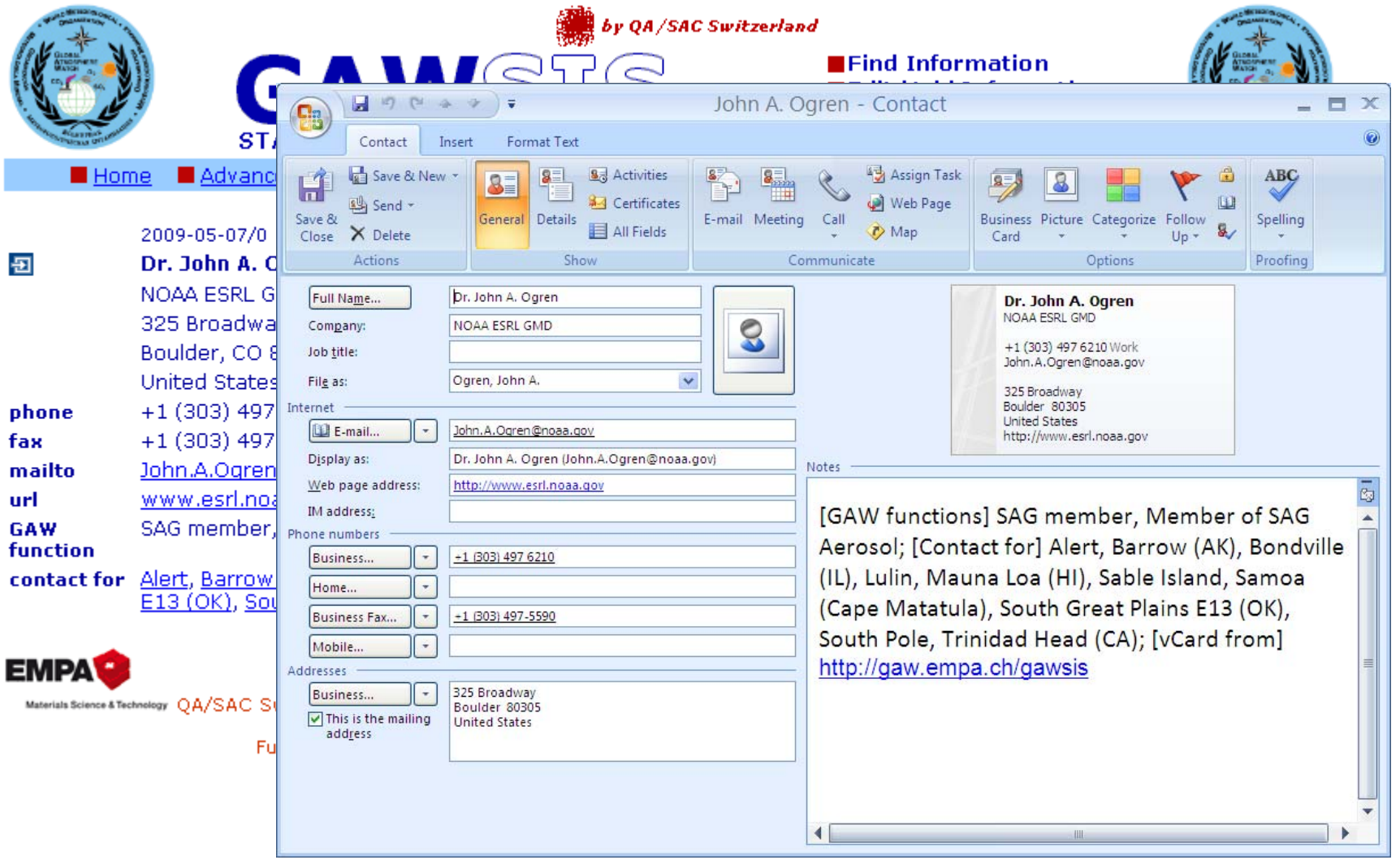


GAWSIS Main Features

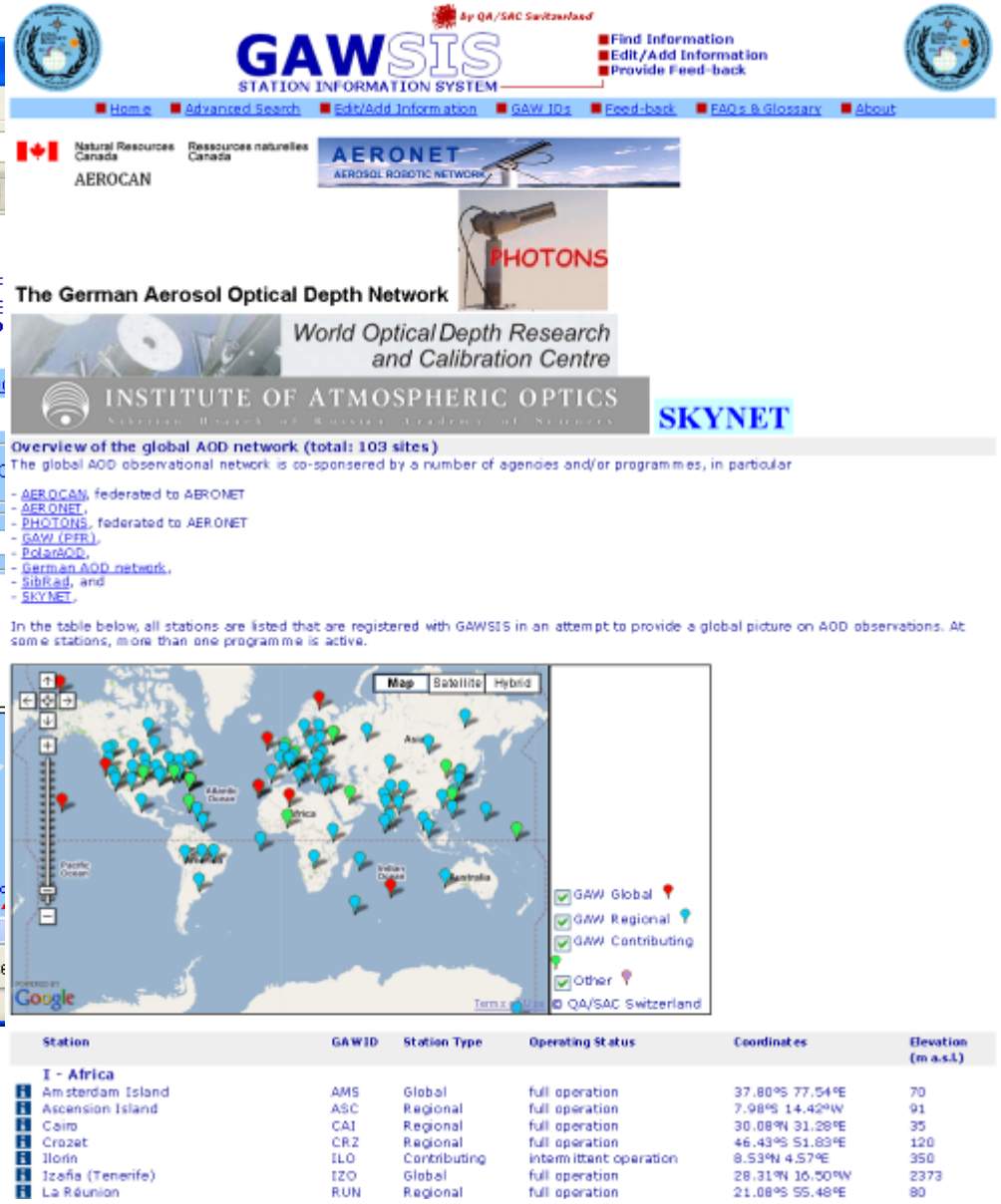
- Lists (and maps) of stations
- Lists of contacts
- Station reports
  - Site characterization
  - Measurement program
    - Meta data for each series
    - Hyperlinks to data archive
  - Contacts
  - Bibliographic references
- Clearinghouse for 3-letter station codes (incl. GAW IDs)



GAWSIS: vCard



GAWSIS: Global Overview on AOD



GAWSIS: Metadata from NDACC

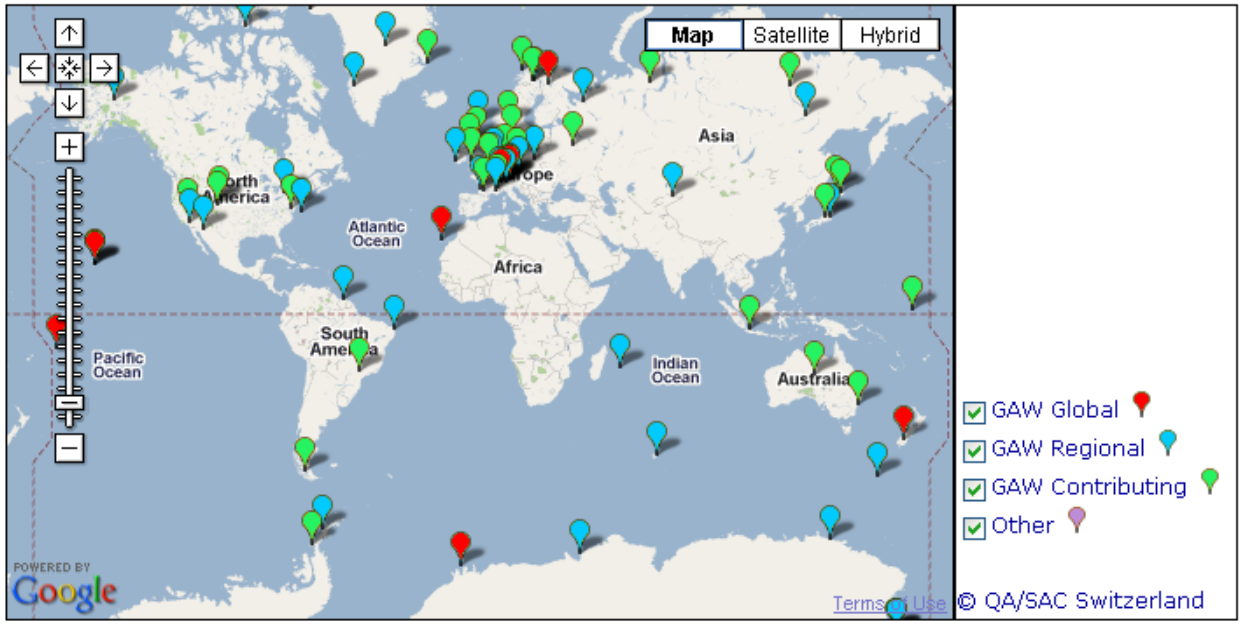
by QA/SAC Switzerland

GAWSIS
STATION INFORMATION SYSTEM

- Find Information
- Edit/Add Information
- Provide Feed-back

Home | Advanced Search | Edit/Add Information | GAW IDs | Feed-back | FAQs & Glossary | About

Stations registered for GAW-affiliated network 'NDACC' (total: 83)

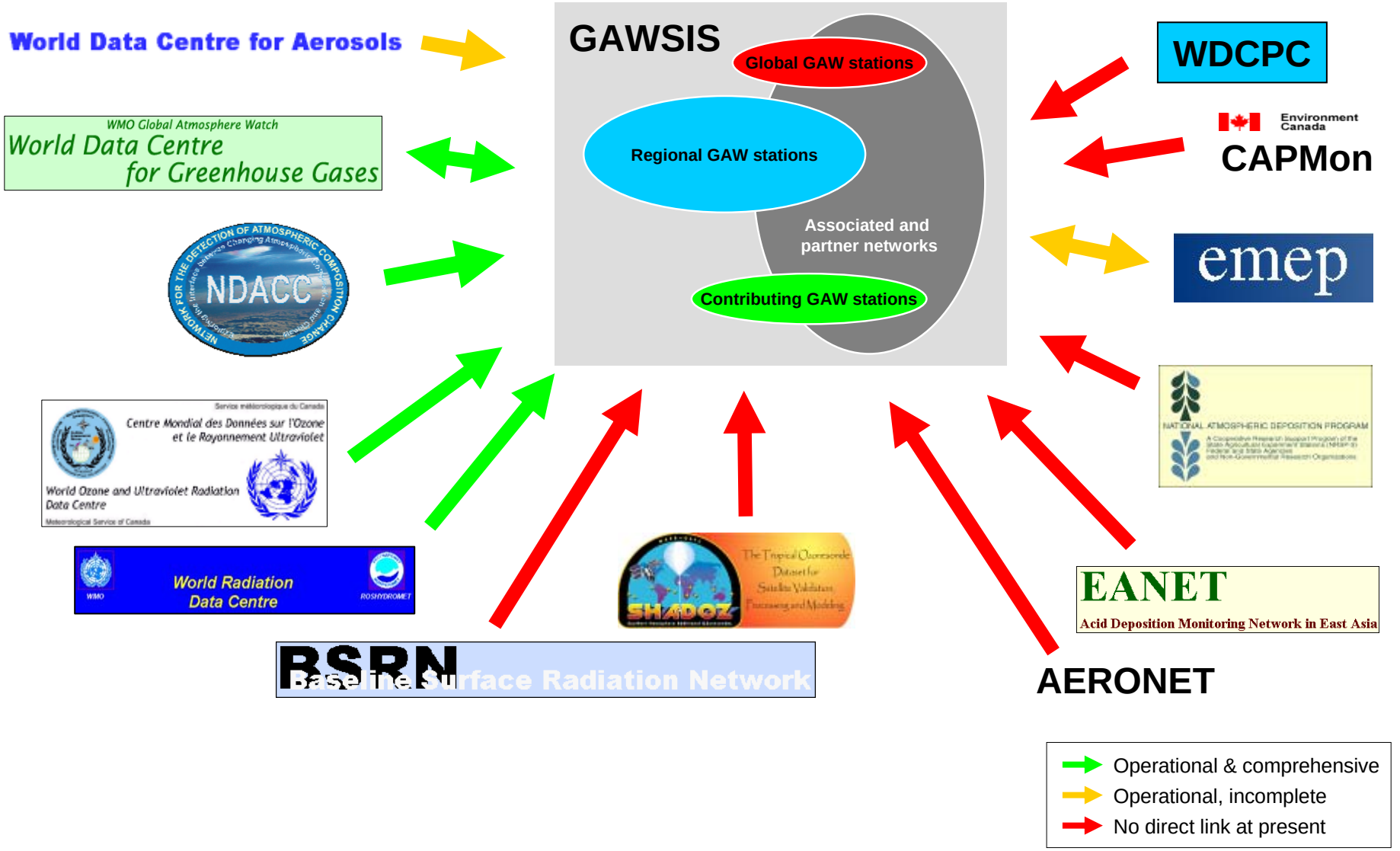


Station	GAWID	Station Type	Operating Status	Coordinates	Elevation (m a.s.l.)
I - Africa					
Izaña (Tenerife)	IZO	Global	full operation	28.31°N 16.50°W	2373
La Réunion	RUN	Regional	full operation	21.08°S 55.48°E	80
Port-aux-Français (Iles Kerguélen)	KER	Regional	full operation	49.35°S 70.28°E	29
II - Asia					

Interoperability of data centers

- Facilitate discovery
  - Find information regardless of origin
  - Find everything about a station
  - Find all sites measuring a given variable
- Converge towards international standards
  - Same vocabularies
  - Same quality standards
- Facilitate network management and development
- Increase visibility and traffic to archives

GAWSIS – Metadata Integration for WIS



GAWDAP by QA/SAC Switzerland
DATA ACCESS PORTAL powered by GAW WDCs

Select Station

Station Jungfraujoch (JFJ)

Request Data from Station 'Jungfraujoch'

Period from ____ to ____

Variables

Greenhouse Gas
- ☐ CH4 [method: GC-FID; submitter: Empa; archive: WDCGG; data generation:Continuous] XML
- ☐ N2O [method: GC-ECD; submitter: Empa; archive: WDCGG; data generation:Continuous] XML
- ☐ SF6 [method: GC-ECD; submitter: Empa; archive: WDCGG; data generation:Continuous] XML

Ozone
- ☐ Surface ozone [method: UV photometry [general]; submitter: Empa; archive: WDCGG; data generation:Continuous] XML

Reactive Gas
- ☐ CO [method: Non-dispersive IR (NDIR); submitter: Empa; archive: WDCGG; data generation:Continuous] XML
- ☐ NO [method: Chemiluminescence (CL) [general]; submitter: Empa; archive: WDCGG; data generation:Continuous] XML
- ☐ NO2 [method: Chemiluminescence (CL) [general]; submitter: Empa; archive: WDCGG; data generation:Continuous] XML
- ☐ NOx [method: Chemiluminescence (CL) [general]; submitter: Empa; archive: WDCGG; data generation:Continuous] XML
- ☐ SO2 [method: Ion Chromatography (IC) [general]; submitter: Empa; archive: WDCGG; data generation:Continuous] XML

Data Type hourly

Your e-mail ____

Terms & Conditions

On any publication using data from the individual station, the author must contact the data submitters concerning co-authorship or acknowledgments, and make proper descriptions on the data sources in their references.

☐ I agree.

Submit Cancel

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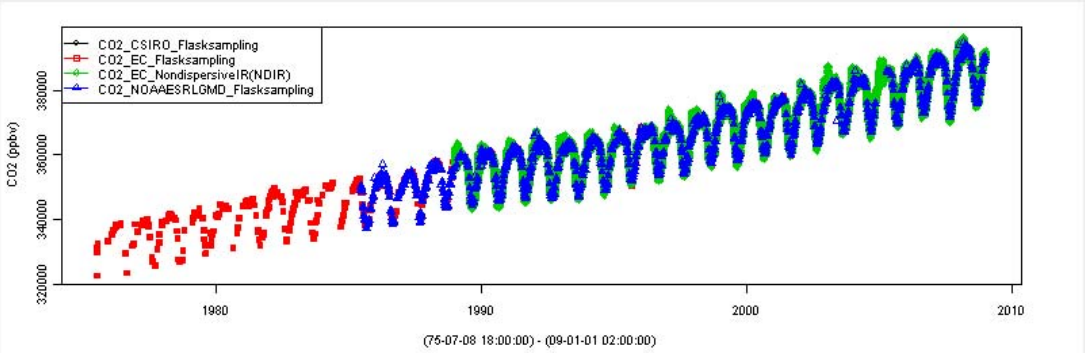
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Department of Home Affairs FDHA
Federal Office of Meteorology and Climatology MeteoSwiss

GAWDAP by QA/SAC Switzerland
DATA ACCESS PORTAL powered by GAW WDCs

Combined Data from Station 'Alert'

Combined Data Processing Protocol



New request

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Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Department of Home Affairs FDHA
Federal Office of Meteorology and Climatology MeteoSwiss

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DATA ACCESS PORTAL powered by GAW WDCs

Metadata XML representation

ch.empa.GAWSIS.Surfaceozone_c30m.JFJ_Empa XML

File identifier: ch.empa.GAWSIS.Surfaceozone_c30m.JFJ_Empa
Language: eng
Character set: iso-8859-1
Metadata standard name: ISO 19115:2003/19139
Metadata standard version: 1.0

- Metadata Contact
- Reference System Info
- Identification Info

Title: Surface ozone values from GAW station JFJ (data generation: continuous , reporting interval: 30)
Abstract: Time series of Surface ozone measurements (type:Ozone) at Global Atmosphere Watch station Jungfraujoch (station type: Global). Measurements are Continuous. The measurement interval is 30 Minute(s). The measurement method is UV photometry [general] . The high alpine research station Jungfraujoch is situated on a mountain saddle between the two mountains Jungfrau (4158m asl) and Mönch (4099m asl). The station is located in the center of Europe at an altitude of 3580m asl and is surrounded by highly industrialized regions at much lower altitudes. This special geographical situation offers the opportunity to monitor background concentrations but also to investigate the transport of anthropogenic pollutants from the boundary layer to the free troposphere.
revision: 2009-10-05

- Responsible Party
- Extent

Description: position where dataset was acquired
Geographic Identifier: Switzerland
Geographic Identifier: VI - Europe
Bounding box:
46.548 (°N)
7.9867(°E) 7.9867(°E)
46.548(°N)
Vertical extent: 3580 - 3580 m above sea level
Temporal extent: 1986-01-01 - 2008-12-31

- Distribution Information
- Data Quality Info

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