

# Status of atmospheric databases

## Offline Database Monitor

This page shows the date and time of the last update of the Offline Master and Mirror databases.

<b>Database.Table</b>	<b>BUW Master db-master.auger.uni-wuppertal.de</b>	<b>BUW Mirror db.auger.uni-wuppertal.de</b>
<i>AERA_3_A.RHardWareAssociation</i>	2015-04-16 17:25:58	2015-04-16 17:25:58
<i>AERA_4_A.RHardWareAssociation</i>	2019-01-11 16:29:39	2019-01-11 16:29:39
<i>Atm_Aerosol_1_A.aerosol</i>	2017-02-02 14:52:53	2017-02-02 14:52:53
<i>Atm_Molecular_1_A.molecular</i>	2019-02-27 03:04:04	2019-02-27 03:04:04
<i>Atm_Quality_0_A.overall_quality</i>	2017-04-11 10:36:06	2017-04-11 10:36:06
<i>Atm_Cloud_1_A.cloud_pixel</i>	2018-08-31 14:56:59	2018-08-31 14:56:59
<i>Atm_Lidar_1_A.lidar</i>	2014-06-05 03:16:08	2014-06-05 03:16:08
<i>Atm_GOES_0_A.cloud_pixel</i>	2018-10-11 23:34:29	2018-10-11 23:34:29
<i>FD_Calib_0_A.working_calib</i>	2014-02-03 17:22:38	2014-02-03 17:22:38
<i>FD_Calib_1_A.working_calib</i>	2015-12-18 19:00:00	2015-12-18 19:00:00

# Status of atmospheric databases

Ready for ICRC 2019 Hybrid Data Set

## Molecular database

Updated till Feb 2019  
Running smoothly

## Clouds monitoring :

### GOES database

Updated till Dec 2017 →

work on GOES-16 data in progress to add new data  
(A. Puyleart from MTU will report at the Malargue meeting)

### CLOUD database

Updated till April 22<sup>nd</sup> 2018 → Adelaide group  
Interesting work by M. Niechciol for a possible use of other CCs  
than the triggered station when not available presented in Nov.

### LIDAR database

Updated till March 9<sup>th</sup> 2014 → **NO NEW DATA FOR ICRC DATASET**  
Good progresses in data analysis (J. Pallotta will report  
at the Malargue meeting)

For cloud rejection an approach using all information from different instruments  
is used in data analysis → Unified approach since ICRC 2017

# Aerosol Database

## **Apr 14<sup>th</sup>, 2017 → final release for ICRC 2017 :**

- DB name : Atm\_Aerosol\_1\_A
- Software version : CSM\_NAP\_v2.0
- Years : Jan 2004 – Dec 2015
- Changes wrt previous release : Aerosol and Multiple Scattering accounted for in DN analysis, starting from 2005.

## **soon → final release for ICRC 2019 :**

- DB name : Atm\_Aerosol\_1\_A
- Software version : ADE\_NAP\_v1.0
- Years : Jan 2004 – Dec 2017
- Changes wrt previous release : use of the new Data Normalized Offline-based code. Different extrapolation of VAOD at ground (first km).

# Status of atmospheric databases

In progress for ICRC 2019 Hybrid Data Set

## Aerosol database

### FD\_Calib\_1\_A

all telescopes up to December 2015

+ for the Aerosol Profiles measurements, we used Gaetano's FD calibrations for the period 01/2016 – 03/2018 (not yet officially released, but stable for CLF/XLF studies)

**Atm\_Aerosol\_1\_A** → Data Normalized Analysis Offline based code  
2004-2017 dataset

**Violet M. Harvey (Adelaide)** new Offline-based “DNatmos” code, improved wrt the old CLFatmos. “**Violet\_v3**” circulated for tests since mid-September → good agreement with the ICRC2017 data on 2004-2015 data, but the  $\Delta X_{\max}$  distribution (Violet\_v3 - ICRC2017) has some tail, mostly due to a different definition of the minimum cloud base height which has been corrected. In addition, a cut on the minimum cloud base height is under discussion.

The Violet\_v4 db files are ready (today) → test in the next days.

**Atm\_Quality\_0\_A** → Ready with the Violet\_v3 dataset, is going to be updated with the Violet\_v4 dataset