

Water vapor isotope experiment was conducted during RARA AVIS cruise (Ship name: S/V Rara Avis) between Jan 2015 and Mar 2015 (May 2015 and Jun 2015) over the Atlantic Ocean (70 W - 10 W; 10 N - 50 N).

1. Time stamps

Data files are stored in 15 min resolutions using end time stamps (YYYYMMDDHHmm).

2. Data format

Data files are CSV formatted.

3. Time zone convention

Time is reported in UTC.

4. Missing data

Missing data is replaced with -9999.

5. Variable definitions

Column	Description	Unit	Equipment	Height (m)	Additional description
Column 1	Start time	–	–	–	UTC
Column 2	Latitude	degree (°C)	–	–	–
Column 3	Longitude	degree (°C)	–	–	–
Column 4	Water mixing ratio	ppmv	Picarro L2120-i	10	–
Column 5	Water vapour isotopic ratio (18O)	per mil	Picarro L2120-i	10	Normalized to V-SMOW; Humidity dependence correlation: Non-linear regression
Column 6	Standard deviation of 18O	per mil	Picarro L2120-i	10	15 min
Column 7	Water vapour isotopic ratio (D)	per mil	Picarro L2120-i	10	Normalized to V-SMOW; Humidity dependence correlation: Non-linear regression

Column 8	Standard deviation of D	per mil	Picarro L2120-i	10	15 min
Column 9	Air temperature	Celsius (°C)	MetPak Pro Gill	4	–
Column 10	Relative humidity	<=1	MetPak Pro Gill	4	–
Column 11	Air pressure	kPa	MetPak Pro Gill	4	–
Column 12	Precipitation	mm	MetPak Pro Gill	4	–
Column 13	Net radiation	W/m ²	MetPak Pro Gill	4	–
Column 14	Wind speed	m/s	MetPak Pro Gill	4	–
Column 15	Wind direction	degree (°C)	MetPak Pro Gill	4	–

6. Reference papers

Benetti, M. et al. Stable isotopes in the atmospheric marine boundary layer water vapour over the Atlantic Ocean, 2012–2015. Sci. Data 4:160128 doi: 10.1038/sdata.2016.128 (2017).

7. Site contact

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