WMO OMM

World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

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Form for Regular Reporting of Regional Instrument Centres

(please expand the cells as required to properly reflect your activities)

Terms of Reference for Regional Instrument Centres (RICs) are available under: https://www.wmo.int/pages/prog/www/IMOP/instrument-reg-centres.html

Regional instrument Centre - General Information	
Name of RIC	Toulouse, FRANCE, RA VI
RIC's website	/
Institute hosting RIC	METEO FRANCE
City	TOULOUSE
Country	FRANCE
Regional Association	RA VI

Contact Person for the Regional Instrument Centre		
Courtesy Title	Ms	
First name	Françoise	
Family name	MONTARIOL	
Street and number	Batiment Emilie du Châtelet, 42 avenue Coriolis	
Postal code	31057	
City	Toulouse	
State/Province	/	
Country	FRANCE	
Tel. number(s)	(+33) (0)5 61 07 91 50	
Fax number(s)		
Email(s)	Francoise.montariol@meteo.fr	
Has contact person changed since 2013?	☑ Yes	☐ No
If yes, provide the previous contact person?	Mrs Eliane JEANNEY	

RIC's staff
(Please specify the number of your managerial and technical staff) • Managerial: 2 • Technical: 6

Interlaboratory Comparisons

Have you organized any interlaboratory comparison? (If yes, please specify the event(s) and final reports, including their web links, if available)**:**

- In 2014, for both pressure and humidity calibration. The 3 participants were the 2 DWD laboratories in Hamburg and Munich and RIC Toulouse. Results were presented at TECO2014 in St Petersburg.
- In 2013 ILC organised for pressure, temperature and relative humidity calibration with Maroc Météo.

Have you participated in any interlaboratory comparison? (If yes, please specify the event(s) and the report(s), including their web links, if available)**:**

- In 2015 for temperature calibration, ILC organised by the accredited company Deltamu (http://www.deltamu.com/en).
- In 2016 for temperature, pressure and relative humidity calibration, ILC organised by the WMO TT-RIC in RA VI and the University of Ljubljana (Slovenia). Report published in 2017.

Applied International Standards/Norms

Is your RIC accredited according to ISO/IEC 17025?

☐ **Yes** (please, specify the following):

Accreditation/certification body:

Date of the last audit:

Link to the Certificate of Accreditation:

☑ **No** (please, indicate if you have already applied any quality management system, and provide a reason for a lack of accreditation, if possible)

- The laboratory used to be accredited for pressure, temperature and relative humidity calibration according to ISO 17025. Meteo-France voluntarily stopped the accreditation, for costs saving reasons. The laboratory has since kept on working abiding by the ISO 17025 standard.
- The laboratory, as part of Meteo-France, is accredited according to ISO 9001.

Assessment by a recognized authority other than accreditation body

Was your RIC assessed by a recognized authority other than an accreditation body? (e.g. certification body, NMI, another RIC)

☑ **Yes** (please, specify the following):

Name of a recognized authority: Bertrand Blanquart

Date of the last assessment: november 2014

Standard against which the assessment was carried out: ISO 17025

☐ **No** (please, explain why, if possible)

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WMO/CIMO Evaluation Scheme (excel file)

Have you filled out the WMO/CIMO Evaluation Scheme (excel) and submitted it to the WMO Secretariat?

☑ **Yes** (please, specify when): 16/01/2018

☐ **No** (please, explain why, if possible)

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Calibrations of the Members' Instruments

Which calibration services, were provided by your RIC for other Members/countries since 2013? (Please specify) /

Year	Type of instruments	Number of calibrated instruments	WMO Member/Country

Capacity Development and Training Activities

Which capacity development/training activities have been carried out by your RIC since 2013 within the Region? (please specify events, WMO Members that participated and the number of participants)

- /

Has your RIC provided services on capacity development and training outside the Region? (If yes, please specify to whom and when)

- In 2013, training organised in Toulouse on ILCs for 2 people from Maroc Météo.
- In 2014, training organised in Toulouse on metrology for 1 person from Maroc Météo.
- In 2015, training organised in Algiers on pressure calibration and metrology for a group of people from the Office Nationale de la Météorologie of Algeria.
- In 2015, audit of the laboratory of metrology of Maroc Meteo in Casablanca, according to ISO 17025, carried out by Eliane Jeanney from Meteo-France.
- In 2016, training organised in Toulouse on calibration and metrology for 2 people from the Institut National de Meteorologie of Tunisia.

Which guidance documents, standard procedures or other publications were developed and published by your RIC since 2013? (Please, include full reference and web-link if available)

- /

Utilization of Resources and Capabilities of the Region

(Have you collaborated with other RICs, RRCs, RTCs, NMHSs or NMIs on standardization of meteorological and other related environmental measurements? If yes, please specify when and how)

- As a member of the WMO Expert Team on Operational Metrology, Francoise Montariol from the RIC laboratory in Toulouse has been working on such subjects. (See work done and documents written by ET-OpMet.)

Recent Changes in Circumstance

Have there been any changes in your RIC's capabilities since 2013? (If so, please specify)

- ISO 17025 accreditation was voluntarily dropped by Meteo-France at the end of 2013. The laboratory works on following the ISO 17025 without accreditation.

Have there been any significant changes in your RIC's infrastructure since 2013? (If so, please specify)

- New pressure primary standard and new pressure generator for the pressure laboratory.

Have there been any changes in your staffing since 2013? (If so, please specify)

- Head of RIC retired end of 2015, deputy Head became Head.
- New deputy Head first in January 2014, then again in October 2016.
- One laboratory expert retired beginning of 2016. New staff arrived later in 2016.
- An other laboratory expert retired end of October 2017. New staff arrived in December 2017.

Future Plans and any other relevant information

(Please provide plans/projects of your RIC for 2017, and add any other information you find relevant about your RIC)

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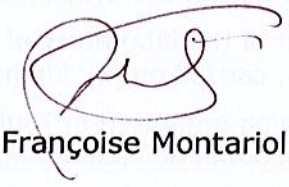
Are you in agreement with publishing this reporting form on WMO/CIMO website?

☑ Yes ☐ No

Date

16/01/2018

Name and Signature of Person in Charge of RIC



Françoise Montariol

ANNEX

(Following information will be a part of your RIC's website as published on the WMO/CIMO website)

Specific information on Instrument Calibration Capabilities

Temperature:

Instrument Undergoing Calibration	Calibration Range	Reference standard, Equipment	Calibration and Measurement Capability (CMC)*	Traceability of Reference equipment	
				Last standard calibration date	Calibration body
Platinum Resistance Thermometers	From −25 °C to +50 °C	Primary standard SPRT 25Ω (ASL CTP5000-T25B), 2 liquid baths with equilization block (HETO KB23R and Isotech 915L), 2 resistance bridges (ASL F17A and MicroK800)	22 mK	04/2016 (SPRT 25Ω), 03/2016 (MicroK800 bridge), 09/2016 (ASL F17A bridge)	French National Laboratory LNE
Platinum Resistance Thermometers	From −20 °C to +40 °C	3 secondary SPRTs 100Ω (ASL CTP5000-850BU, CLAL TLH600 and Isotech 95L), 2 liquid baths with equilization block (HETO KB23R and Isotech 915L), 2 resistance bridges (ASL F17A and MicroK800)	33 mK	07/2016 (all 3 SPRTs 100Ω), 03/2016 (MicroK800 bridge), 09/2016 (ASL F17A bridge)	Laboratory of Meteo-France (for SPRTs 100Ω) and French National Laboratory LNE (for resistance bridges)

Status of accreditation (date of the latest accreditation): /
Link to the accreditation certificate: /
Accreditation body: /

Relative Humidity:

Instrument Undergoing Calibration	Calibration Range	Reference standard, Equipment	Calibration and Measurement Capability (CMC)*	Traceability of Reference equipment	
				Last standard calibration date	Calibration body
Relative humidity capacitance hygrometers	From 11%RH to 97%RH	3 relative humidity standard capacitance hygrometers (2 Vaisala HMT333, 1 Rotronic HC2-S), and humidity generators HMK13B with 5 different saturated salt solutions.	2.0 %RH	One in 05/2017 and two others in 08/2017	French National Laboratory CETIAT

Status of accreditation (date of the latest accreditation): /
Link to the accreditation certificate: /
Accreditation body: /

Atmospheric pressure:

Instrument Undergoing Calibration	Calibration Range	Reference standard, Equipment	Calibration and Measurement Capability (CMC)*	Traceability of Reference equipment	
				Last standard calibration date	Calibration body
Digital barometers	From 500hPa to 1060 hPa	Primary standard high quartz digital barometer (Fluke RPM4), 2 pressure generators (Mensor CPC8000)	6.9 Pa	11/2017	French National Laboratory LNE
Digital barometers	From 500hPa to 1060 hPa	3 secondary standard quartz digital barometers (Fluke RPM3, FGP), 2 pressure generators (Mensor CPC8000)	9.5 Pa	All 3 in 11/2017	Laboratory of Meteo-France

Status of accreditation (date of the latest accreditation): /
Link to the accreditation certificate: /
Accreditation body: /