



## 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	Calibration laboratory
RIC's website	<a href="http://www.shmu.sk/en/?page=1541">http://www.shmu.sk/en/?page=1541</a>
Institute hosting RIC	Slovak hydrometeorological institute
City	Bratislava
Country	Slovakia
Regional Association	RA VI

Contact Person for the Regional Instrument Centre	
Courtesy Title	
First name	Lenka
Family name	LEŠTINSKÁ
Street and number	Jeséniova 17
Postal code	833 15
City	Bratislava
State/Province	Slovakia
Country	Slovakia
Tel. number(s)	00421 2 59 415 124
Fax number(s)	
Email(s)	lenka.lestinska@shmu.sk
Has contact person changed since 2013?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If yes, provide the previous contact person?	Ján Danč

### RIC's staff

(Please specify the number of your managerial and technical staff)

- Managerial: 3
- Technical: 3

### Interlaboratory Comparisons

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

- 2008: Intercomparison between Calibration laboratories of central and eastern European countries (please see attached file for report)

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

- 2008: Intercomparison between RA VI RICs
- 2016/17: Intercomparison in the field of temperature, humidity and pressure MM-ILC-2015-THP (report should be available soon)

### Applied International Standards/Norms

**Is your RIC accredited according to ISO/IEC 17025?**

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

**Accreditation/certification body: SNAS (Slovak national accreditation service)**

**Date of the last audit: april 2017**

**Link to the Certificate of Accreditation:**

<https://ais.snas.sk/ais/#!WebReports/1/list.accredited.subject.search.byfield/AccreditedSubjectsByFields>

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

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### 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:**

**Date of the last assessment:**

**Standard against which the assessment was carried out:**

**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): first submitted in 2013 and now with this report  
 **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)

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

- 2014: consultations for colleagues from Oman

**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)

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### 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)

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### Recent Changes in Circumstance

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

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

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

- One technician retired in 2016
- New head of the Calibration laboratory in march 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)

- There is a calibration event for the operators of brewer spectrophotometers from various central European countries held every two years in regional workplace in Gánovce. It is organized by the Aerology and radiation centre of SHMU in Poprad-Gánovce using a device from Canada as a calibration standard. The next event is due next week.

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

Yes

No

12.5.2017

Date

Leštinská (LENKA LEŠTINSKÁ)

Name and Signature of Person in Charge of RIC

## 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					
<b><u>Temperature:</u></b>					
Instrument Undergoing Calibration	Calibration Range	Reference standard, Equipment	Calibration and Measurement Capability (CMC)*	Traceability of Reference equipment	
				Last standard calibration date	Calibration body
In-Glass thermometers	-30 °C to +40 °C	In-glass thermometer	0.2 °C	2017	SMU
Platinum resistance thermometers	-30 °C to +40 °C	SPRT + resistance bridge	0.05 °C	2017	SMU
Mechanical thermometers	-30 °C to +40 °C	PRT + data collector	1 °C	2017	SHMU
Electronic thermometers	-30 °C to +40 °C	PRT + data collector	0.3 °C	2017	SHMU
Status of accreditation (date of the latest accreditation): 2013 Link to the accreditation certificate: <a href="http://www.snas.sk">www.snas.sk</a> Accreditation body: SNAS					
<b><u>Relative Humidity:</u></b>					
Instrument Undergoing Calibration	Calibration Range	Reference standard, Equipment	Calibration and Measurement Capability (CMC)*	Traceability of Reference equipment	
				Last standard calibration date	Calibration body
RH sensors	10 to 97 %	Dew point standard	2.5 %	2017	ČMI
Hygrographs	20 to 95 %	Capacitance RH sensor in climatic chamber	3 %	2017	SHMU
Mechanical hygrometers	20 to 95 %	Capacitance RH sensor in climatic chamber	5 %	2017	SHMU
Status of accreditation (date of the latest accreditation): 2013 Link to the accreditation certificate: <a href="http://www.snas.sk">www.snas.sk</a> Accreditation body: SNAS					

**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
Absolute pressure	650 to 1050 hPa	Calibrator DHI PPC2+	0.1 hPa	2017	SMU

Status of accreditation (date of the latest accreditation): 2013  
 Link to the accreditation certificate: [www.snas.sk](http://www.snas.sk)  
 Accreditation body: SNAS

**Wind:**

Instrument Undergoing Calibration	Calibration Range	Reference standard, Equipment	Calibration and Measurement Capability (CMC)*	Traceability of Reference equipment	
				Last standard calibration date	Calibration body
anemometer	0.2 to 40 m/s	Thermal and rotating anemometer, Pitot tube	0.1 m/s (BMC)	2017	ČMI

Status of accreditation (date of the latest accreditation): 2013  
 Link to the accreditation certificate: [www.snas.sk](http://www.snas.sk)  
 Accreditation body: SNAS

**Precipitation:**

Instrument Undergoing Calibration	Calibration Range	Reference standard, Equipment	Calibration and Measurement Capability (CMC)*	Traceability of Reference equipment	
				Last standard calibration date	Calibration body
Tipping bucket		Volumetric flask	10 ml at 500 ml	2005	SMU
Weight rain gauge	1g to 7 kg	Set of weights	1 g	2017	SLM

Status of accreditation (date of the latest accreditation): 2013  
 Link to the accreditation certificate: [www.snas.sk](http://www.snas.sk)  
 Accreditation body: SNAS

**Other (please specify if applicable):**

Instrument Undergoing Calibration	Calibration Range	Reference standard, Equipment	Calibration and Measurement Capability (CMC)*	Traceability of Reference equipment	
				Last standard calibration date	Calibration body
NO <sub>x</sub> analyzers	(0.5 to 1000) nmol/mol	Standard analyzer	(0.04 hm + 1.3) nmol/mol	2016	CHMI
SO <sub>2</sub> analyzers	(0.5 to 1000) nmol/mol	Standard analyzer	(0.05 hm + 1.3) nmol/mol	2016	CHMI
O <sub>3</sub> analyzers	(0.5 to 500) nmol/mol	Standard analyzer	(0.03 hm + 1.2) nmol/mol	2016	CHMI
CO analyzers	(0.04 to 50) μmol/mol	Standard analyzer	(0.02 hm + 0.4) μmol/mol	2016	CHMI

Status of accreditation (date of the latest accreditation): 2013  
 Link to the accreditation certificate: [www.snas.sk](http://www.snas.sk)  
 Accreditation body: SNAS

\* A **CMC (calibration and measurement capability)** is the smallest uncertainty (k=2) of measurement that can be expected to be achieved by the RIC during a calibration under normal conditions. This CMC is evaluated by the RIC itself and described in the scope of accreditation of the RIC, if available.