

WMO OMM

WEATHER CLIMATE WATER
TEMPS CLIMAT EAU



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

Secrétariat

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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	RIC-Manila
RIC's website	N.A.
Institute hosting RIC	PAGASA
City	Quezon City
Country	Philippines
Regional Association	RA V

Contact Person for the Regional Instrument Centre

Courtesy Title	Mr.
First name	FERDINAND
Family name	BARCENAS
Street and number	Agham Road
Postal code	1100
City	Quezon City
State/Province	Metro Manila
Country	Philippines
Tel. number(s)	(632) 9292121
Fax number(s)	(632) 9292121
Email(s)	fybarce8@yahoo.com , ferdie@pagasa.dost.gov.ph
Has contact person changed since 2013?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, provide the previous contact person?	

RIC's staff

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

- Managerial: 5
- Technical: 5

Interlaboratory Comparisons

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

- None
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Have you participated in any interlaboratory comparison? (If yes, please specify the event(s) and the report(s), including their web links, if available):

- Trial comparisons only with RIC-Japan for pressure and temperature last March 2016.
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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)

- None yet due to building renovation, no training seminar for ISO 17025 accreditation and preparation but planning to apply.

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: RIC-Tsukuba (Japan) visiting experts

Date of the last assessment: March 2016

Standard against which the assessment was carried out: Temp. & Pressure, Intercomparisons trial only, a digital barometer (3 sensors) was donated from JICA project.

No (please, explain why, if possible):

-

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): **last 2013.**

No (please, explain why, if possible)

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
	None		

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 thenumber of participants)

- None
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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)

- None
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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)

- Meteorological Instruments Maintenance Guideline and Manual- 2016 in cooperation with JICA Project. No web-link.

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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)

- Indonesia's NMHS in 2009, by calibrating their brought barometer and thermometer.

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Recent Changes in Circumstance

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

- Newly acquired open type wind tunnel last 2014 with maximum specified wind speed of 75 m/s.

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

- Building extension last 2016 to accommodate more laboratory space for equipment.

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

- None

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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)

- Acquisition process of additional two (2) wind tunnels at other PAGASA Regional Services Division (Visayas & Mindanao) as prelude to establishment of Local Instrument Centres.

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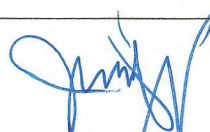
Are you in agreement with publishing this reporting form on WMO/CIMO website?

Yes

No

09 May 2017

Date



VICENTE B. MALANO, Ph.D.

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

Temperature:

Instrument Undergoing Calibration	Calibration Range	Reference standard, Equipment	Calibration and Measurement Capability (CMC)*	Traceability of Reference equipment	
				Last standard calibration date	Calibration body
Thermometers	(0 - 50) °C	Partial immersion mercurial thermometer	0.05 °C	7/23/2015	National Metrology Laboratory, DOST/ITDI Phils.

Status of accreditation (date of the latest accreditation): N.A.
 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
Hygrometers	(40 - 95)%RH	Dew Point mirror	0.5 %RH	08/25/14-09/04/14	MBW Calibration Ltd.

Status of accreditation (date of the latest accreditation): N.A.
 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
Barometers	(880 - 1040) hPa.	Vaisala PTB 330, 3 pressure sensors	0.08 hPa.	10/30/15 - 11/11/15	RIC-Tsukuba Japan

Status of accreditation (date of the latest accreditation): N.A.
 Link to the accreditation certificate:
 Accreditation body:

Wind:

Instrument Undergoing Calibration	Calibration Range	Reference standard, Equipment	Calibration and Measurement Capability (CMC)*	Traceability of Reference equipment	
				Last standard calibration date	Calibration body
Anemometers	(2.0 - 75.0) m/s	Wind tunnel (Westi- Box wind flow calculation system)	0.3 m/s	6/30/2014	Westenberg Engineering

Status of accreditation (date of the latest accreditation): N.A.
 Link to the accreditation certificate:
 Accreditation body:

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 Raingauge (20 cm Dia.) Other Diameter can be calculated	(5 - 140) mm/hr	Rain Gauge Test Equipment (Theodor Friedrichs & Co.) Calibration using Graduated Cylinders - (500 ml, 100ml)	within $\pm 5.0\%$ error	6/24/2015	Premier Physic Metrologie
Tipping Bucket Raingauge (20 cm Dia.) Other Diameter can be calculated	(50 - 300) mm/hr	FCD - 50 mm, 100 mm, 200 mm, 300mm nozzles Calibrated from Graduated Cylinders - (500 ml, 100ml)	within $\pm 5.0\%$ error	6/24/2015	Premier Physic Metrologie

Status of accreditation (date of the latest accreditation): N.A.
 Link to the accreditation certificate:
 Accreditation body:

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
		N.A.			

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

* 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.