

RIC Buenos Aires, Argentina (RA III)

CIMO/WIGOS Exploratory Workshop Langen, Germany, 03-05, December 2014

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Background

- Regional Instrument Center Buenos Aires is located in Buenos Aires, Argentina, under the administration of Servicio Meteorologico Nacional, member of RAIII.
- WMO Res 8/1 1976 establishes the responsibility of RIC Buenos Aires to assist WMO RAIII members in the calibration and maintenance of met instruments.
- Regional Radiation Center is an associated center under the same administration but located 5 km away from RIC.









RRC BUENOS AIRES











RIC BUE

- LABORATORY
- MECHANICAL
- ELECTRONIC









Negretti Zambra Pressure Chamber











RIC BUENOS AIRES CAPACITY

BASIC CAPACITY

• <u>ATMOSPHERIC PRESSURE</u>

DIGITAL BAROMETER VAISALA PTB22O Range 500 to 1100 hPa

TEMPERATURE

DIGITAL THERMOHIGROMETER VAISALA HMT 330 Range -50°C to +60°C

HUMIDITY

DIGITAL THERMOHIGROMETER VAISALA HMT 330 Range 0 to 100 %

WIND

WIND TUNNEL Range 0 to 25 m/s





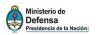




							Traceability		
Domain	Calibrated item	Measurand	Range / Domain	Principle / Reference	Calibration instruments (Reference Standard, Equipment)	Best Capability	Last standard calibration date	Ву	
Pressure	Digital Barometer	Error	500 to 1100 hPa	Calibration by comparison	Digital Barometer Vaisala PA11	± 0.1 hPa at ± 20°C	DEC 2008	INTI National Institute of Tech	
Pressure	Digital Barometer	Error	500 to 1100 hPa	Calibration by comparison	Digital Barometer Vaisala PTB220	± 0.1 hPa at ± 20°C	DEC 2008	INTI National Institute of Tech.	
Temperature / Humidity	Thermohygrometer	Error	Temp -50 to +60°C Hum 0 to 100%	Calibration by comparison	Digital Thermohygrom eter Vaisala HMT 333	Temp ±0.2°C at 20±C Hum ±1% at 090% HR	SET 2014	PTU INSTRUMENTAL LAB. VAISALA	
Wind	Wind Tunnel	Error	025m/s		Ultrasonic sensor Vaisala WMT 700	± 0.135m/s	DEC 2012	La Plata University LAB	
Radiation	Pyrheliometer	Error	0-4000 W/m2	,	CM11 Pyranometer Kipp & Zonen	< 2% Daily	NOV 2014	SMN	









RIC BUENOS AIRES

• Calibration performed per year and per domain:

	Calibration	<u>Numb</u>	Number of staff per						
									<u>domain</u>
•	Name of I	Domain		Total	Internal	External	Manager	Operator	Total
•	Domain 1	Pressure	Number:	27	22	5	1	3	4
•	Domain 2	Temp	Number:	140	136	4	1	3	4
•	Domain 3	Hum	Number:	17	14	3	1	3	4
•	Domain 4	Wind	Number:	33	28	5	1	2	3
	Total number of o	- lib til		047	200	47		Total I	ah ataffi 1































Regional Assistance

- Calibration of mercury barometers from Paraguay, Venezuela, Ecuador and Peru
- Training of met technician from Venezuela, Paraguay and Dominican Republic in the maintenace and calibration of meteorologicaL instruments
- Assistance with own technicians in situ to others countries
- Met students from Uruguay have visited the RIC and the RRC Buenos Aires.
- Interaction with RTC Buenos Aires to develop activities like regional workshops or training courses











TALLER DE LA **OMM** SOBRE EVALUACIÓN DE LAS COMPETENCIAS DEL PERSONAL DE METEOROLOGÍA AERONÁUTICA

BUENOS AIRES. ARGENTINA, 17-21 DE NOVIEMBRE DE 2014

WMO WORKSHOP ON

OF AERONAUTICAL
METEOROLOGICAL
PERSONNEL

BUENOS AIRES. ARGENTINA, 17-21 NOVEMBER 2014







TRAINING RIC & RTC







RIC GOALS

- BUILDING DURING THE LAST 3 YEARS UPGRADED.
- COUPLE OF YEARS AGO STARTED THE CHANGE OF MERCURY BAROMETERS FOR MODERN DIGITAL PTB330
- QMC STARTED IN 2008 ISO 9001-2008 CERTIFIED LAST CERTIFICATION NOV 2014









RIC PROBLEMS AT PRESENT

- BEST COMMUNICATION FACILITIES
- LOW QUANTITY OF TECHNICIANS
- TRAINING IN METEOROLOGYCAL METROLOGY
- ONE THERMOHIGROMETER CHAMBER OUT OF WORK
- COMPLIANCE WITH ISO 17025









SHORT AND MEDIAN RANGE PLANS

- COMPLETE REVIEW OF STATION NETWORK MET INSTRUMENTS
- COMPLIANCE WITH INSPECTIONS REQUIREMENTS :
 - SYNOPTIC EVERY 2 YEARS
 - AERONAUTICAL AND GSN STATIONS EVERY YEAR
 - AWOS EVERY 6 MONTHS
- INCORPORATE QMC INTO THE OBSERVATION PROCESS
- DEVELOP RIC INFORMATION AND CONTACT PROCEDURES ON WEB SITE www.smn.gov.ar
- BUILD REGIONAL FACILITIES FOR MAINTENANCE
- REQUEST TRAINING IN METROLOGY AND IN BEST PRACTICES IN METEOROLOGICAL INSTRUMENTS CALIBRATION IN LAB AND IN SITU METHODS









Conclusions

RIC NEEDS CIMO ASSISTANCE IN ORDER TO OBTAIN:

- INTERACTION WITH LEAD CENTERS AND TESTBEDS
- WORKSHOPS IN METEOROLOGICAL METROLOGY AND BEST PRACTICES IN LAB CALIBRATION AND IN SITU COMPARISON.
- IMPROVE NEW TECHNOLOGY IN THE RIC TECHNICIANS INVOLVED IN METEOROLOGICAL INSTRUMENTS CALIBRATION PROCESS.
- BETTER INTERACTION WITH RAIII MEMBERS
- GUIDANCE ABOUT MINIMUM SPECIFICATIONS REQUIREMENTS FOR INCORPORATION INTO THE MET INSTRUMENTS TENDERS DEVELOPED BY MEMBERS.









Thank you

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