



CALIBRATION LABORATORY

The Calibration Laboratory is responsible for calibration of measuring devices in the ARSO meteorological, hydrological and ecological measurement network and at Slovenia's international airports. The laboratory was set up following Slovenia's independence. In first decade the Calibration Laboratory has been equipped primarily to calibrate instruments measuring temperature, air and hydrostatic pressure, relative humidity, solar radiation and air quality quantities. The main objective of the laboratory's work is to ensure the quality of ARSO measurement data used in providing public information, in the quality of meteorological models, climatological and ecological analyses, and in transport, agriculture... Accreditation of the ARSO laboratory is of fundamental importance for the quality implementation of national monitoring.

In 1997 the Calibration Laboratory has begun the procedure of accreditation in compliance with the international and adopted Slovenian standard SIST/EN 45001 and the guideline ISO/IEC Guide 25. Accreditation for the laboratory represents demonstrable ability to carry out calibrations in accordance with the strict requirements of the standard.

Accreditation procedure for the ARSO Calibration Laboratory in the area of temperature calibration was successfully concluded in April 1999. Accreditation No. 2.1404 was granted by the French accreditation service COFRAC. In parallel the Slovenian accreditation service at the Office of Standards and Metrology of the Republic of Slovenia granted the laboratory accreditation according to a procedure implemented together with COFRAC. This places the ARSO Calibration Laboratory among the first ten laboratories with such accreditation in Slovenia.

In 2002, the accreditation domain of the Calibration Laboratory was extended in the field of air pressure. In addition to this, the laboratory transferred from the quality system from the EN 45000 standard to a system to the new standard SIST EN ISO/IEC 17025.

Calibration laboratory is accredited by Slovenian Accreditation according to SIST EN ISO/IEC 17025:2005 (accreditation certificate LK-006).

In September 2005 World meteorological organization (WMO) appointed Calibration laboratory as Regional Instrument Centre (RIC) for South-eastern part of Europe. There are two other RICs in Europe: Meteo France and Slovak Hydrometeorological Institute. The main purpose of RIC is:

- To keep a set of meteorological standard instruments linked with recognized international or national standards and to log their performance and elements of comparison;
- To assist Members of the Region in calibrating their national standard meteorological instruments or in comparing them with the standard instruments mentioned in below and to keep the Members of the Region and the WMO Secretariat informed on the available standard instruments;
- To be prepared to certify the instruments' conformity with the standards with reference to WMO recommendations;
- To organize instrument evaluations and comparisons, following standard methods;
- To advise Members of the Region concerned on their enquiries regarding instrument performance and the availability of relevant guidance material;
- To assist WMO in organizing regional symposia, seminars or workshops on the maintenance, calibration and comparison of meteorological instruments by providing laboratory and field installations, as well as assistance with regard to demonstration equipment and expert advice;
- To keep a library of books and periodicals on instrument theory and practices;
- To cooperate with other RICs to provide standardization of meteorological instruments.

In the end of 2005 the extension of the Calibration Laboratory's accreditation domain included relative humidity calibrations and for air quality parameters: carbon monoxide (CO), sulphur dioxide (SO₂), ozone (O₃), nitrogen monoxide (NO) and nitrogen dioxide (NO₂).