

Table 4.8-1 Barometer Calibration Services*		
Company	Internet	Phone
The Barometer Man (U.S.)	barometerman.com	970-640-0689
InnoCal (U.S.)	innocalsolutions.com	866-466-6225
Fisher (Germany)	fischer-barometer.de	+49 (0) 37341 487
Russel Scientific (U.K.)	russell-scientific.co.uk	+44 (0) 1362-693481
Starpath (U.S.)	starpath.com	206-783-1414

\* **Notes.** Several companies offer a service to calibrate or re-calibrate instruments that they manufacture, but not others. The companies in this table calibrate all barometers, aneroid or electronic. Arrangements and prices vary with the instrument and calibration needs.



was carried out and how long the pressure remained at the individual test pressures before moving to the next. Generally though, the people offering these services are experienced in the calibration process and the calibration data they provide is dependable.

**Figure 4.8-2 Left.** The Ideal Arrowsmith test chamber and standards gauges used by Merrill Kennedy (barometerman.com) for calibration using both a Vaisala PTB 220 and a Druck DPI 740 as standards. He offers aneroid repair services as well as calibrations, and sells a wide variety of new and used high quality instruments.



**Figure 4.8-3** Test chamber used at Starpath HQ. The standard shown in an NIST traceable GE Druck DPI 142 ( $\pm 0.10$  mb); a DPI 740 is also used. A Davis Perception II is used to monitor ambient conditions during the test. A small diaphragm pump both evacuates and pressurizes, with adjustable regulators that limit the pressure range to  $>900$  mb and  $<1050$  mb. The chamber pressure can be set in seconds to a chosen pressure accurate to 0.1 mb. The controls are Fast Up or Fast Down (about 10 seconds to cover full atmospheric range), and Slow Up or

Slow Down, which changes pressure at just less than 0.1 mb/sec. The chamber pressure port is connected to the standards instrument and to a Vernier BAR-BTA sensor connected to the PC (using Vernier Logger Pro software), which records and plots the chamber pressure vs. time. The chamber temperature is also recorded (Vernier GoTemp sensor) vs. time, as are photographs or video of the barometer face at each test pressure. A momentary switch on the panel activates a vibrator that “taps” the test instrument as needed.

This system was designed and built by Steve Hansen of DiverseArts, LLC, in Owl’s Head, ME. For further information (excluding pressure standards) see [www.belljar.net/barometer](http://www.belljar.net/barometer).