



STERLING FIELD SUPPORT CENTER

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NWS Pressure Standards Laboratory Overview

This document provides an overview of the National Weather Service (NWS) Pressure Standards Laboratory (PSL) calibration operations. The PSL primary customers are the NWS Automated Surface Observing System (ASOS) Program and Upper Air Observing Program. There are approximately 500 barometers calibrated annually by the PSL. The PSL monitors the calibration cycle of these barometers located at NWS Regional field sites and exchanges them with newly calibrated barometers prior to the unit's calibration expiration.

The Fluke piston gauge model PG7601-AMH is used as the primary standard for these calibrations. The PSL infrastructure allows for up to 16 barometers to be calibrated at a time. Every calibration produces an As Found and As Left calibration certificate detailing the barometer's traceability and performance.

The table below lists the PSL's calibration standards and the devices under test (DUT) previously evaluated:

Standard Class	Manufacturer	Type	Model	Range (kPa)	Uncertainty (kPa)
Primary	Fluke Corporation	Piston Gauge	PG7601-AMH	10 to 300	0.001 % Rdg
				100 to 3900	0.002 % Rdg
Secondary	Ruska	Piston Gauge	2465-705	10 to 107	0.005 % Rdg
Check	Fluke Corporation	Pressure Controller and Indicator	PPC4-ui A100Ks	0 to 110	0.01 % Rdg
Working	Fluke Corporation	Pressure Controller and Indicator	6270A	2 to 2400	0.01 % FS
Working	Ruska	Pressure Indicator	6220	0 to 130	0.05 % Rdg
Working	Paroscientific, Inc	Pressure Indicator	745	80 to 103	0.01 % Rdg
DUT	Paroscientific, Inc	Pressure Indicator	760-16B	60 to 110	0.01 % Rdg
DUT	Coastal Environmental Systems	Pressure Indicator	PDB-1	60 to 110	0.01 % Rdg
DUT	Paroscientific, Inc	Pressure Indicator	765	80 to 103	0.01 % Rdg