Calibration-Interval Adjustment Indicator: A Concept

A proposed circuit, when used with a decision table, permits relatively unskilled personnel to maintain effective quality control. The design, based on an assumption that the most recent instrument history will provide the best indication for future performance, was conceived for the purpose of determining required changes in calibration intervals. Interval readings are recorded to the nearest integer, making high precision unnecessary.

Specific required performance-history information includes: (1) Present recalibration interval in time units; (2) Sequential tabulation of as-found calibration conditions, with appropriate codes as follows: (a) within tolerance; (b) within tolerance, but requires adjustment or minor repair; (c) operative, out of tolerance, but within 200% of required tolerance; (d) operative, but more than 200% out of tolerance; and (e) inoperative.

The indicator acts on the above information and makes one of the following decisions (see Circuit Diagram): (A) Extend the interval by 20%, for an instrument with continuously good performance; (B) Extend the interval by 7%, for an instrument with basically good performance; (C) Leave the interval unchanged, for an instrument with inconsistent performance; (D) Reduce the the interval by 7%, for an instrument with poor performance; and (E) Request maintenance assistance, for an instrument with a bad performance history.

In operation, the momentary switch is held in the SET position and the SET potentiometer is adjusted to register the instrument's present calibra-
tion interval (meter dial is appropriately marked). Three switches in the logic circuit are adjusted to the proper values by referencing the table, and the momentary switch is moved to the READ position. The calibration interval adjustment decision is then read on the meter, or the assistance request light comes on.

Note:
No additional documentation is available. Specific questions, however, may be directed to:
Technology Utilization Officer
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No patent action is contemplated by NASA.

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