



## Procedures and Guidelines (PG)

**DIRECTIVE NO.** 540-PG-8730.1.1C  
**EFFECTIVE DATE:** 03/19/2008  
**EXPIRATION DATE:** 03/19/2013

**APPROVED BY Signature:** Original signed by  
**NAME:** Stanley Y. Chan  
**TITLE:** RECERT Manager

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### COMPLIANCE IS MANDATORY

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**Responsible Office:** 540/RECERT

**Title:** Calibration and Control of Recertification Program Inspection, Measuring, and Test Equipment

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## PREFACE

### P.1 PURPOSE

This procedure provides process controls for ensuring that Inspection, Measuring, and Test Equipment (IMTE) used by the Code 540/Recertification Program (RECERT) is properly calibrated, maintained, and identified.

### P.2 APPLICABILITY

This Procedure applies to all IMTE used by Code 540/RECERT personnel in the performance of tests and inspections of components within the RECERT Program inventory of ground-based pressure vessels and pressurized systems and lifting devices and equipment at Greenbelt, MD and at the Wallops Flight Facility, VA. RECERT IMTE used for calibration of RECERT customer-owned pressure indicating devices are also covered herein.

### P.3 AUTHORITY

GPR 8730.1, Calibration and Metrology

### P.4 REFERENCES

GPR 5340.2, Control of Nonconformances  
ANSI/NCSL Z540.1 – 1994 (R2002), American National Standard for Calibration – Calibration Laboratories and Measuring and Test Equipment – General Requirements

### P.5 CANCELLATION

540-PG-8730.1.1B, Calibration and Control of Recertification Program Inspection, Measuring, and Test Equipment

### P.6 SAFETY

None

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## P.7 TRAINING

None

## P.8 RECORDS

Record Title	Record Custodian	Retention
Calibration and Repair Records	RECERT Manager	*NRRS 8/103
Calibration and Repair Records of RECERT IMTE calibrated or repaired by outside calibration labs or OEMs	RECERT Manager	*NRRS 8/103

\* NRRS – NASA Records Retention Schedule ([NPR 1441.1](#))

## P.9 METRICS

None

## P.10 DEFINITIONS

Definitions contained in GPR 8730.1 are applicable to this Procedure.

## P.11 ACRONYMS

GSFC –Goddard Space Flight Center  
IMTE – Inspection, Measuring, and Test Equipment  
NCR – Nonconformance Report  
NIST – United States National Institute of Standards and Technology  
OEM – Original Equipment Manufacturer  
RECERT – GSFC Recertification Program

## PROCEDURES

In this document, a requirement is identified by “shall,” a good practice by “should,” permission by “may” or “can,” expectation by “will,” and descriptive material by “is.”

The RECERT Manager shall ensure that the following are established and maintained:

1. The calibration procedures, which include the process, accuracy levels, and intervals, are described for each type of IMTE used by RECERT personnel.

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2. The requirements for procuring calibration services from outside sources. The sources may be outside calibration labs or original equipment manufacturers (OEM's). Purchase Requests (PR's) shall include the following:

- a. The requirement to use calibration master standards traceable to the United States National Institute of Standards and Technology (NIST) or other nationally recognized standards.
- b. The serial number or other unique means of identification of the item to be calibrated.
- c. The accuracy level or other acceptance criteria.
- d. The records to be provided, including and not limited to the equipment certification and a requirement to report out-of-tolerance conditions.

3. The requirements to ensure the appropriate calibration status label is affixed directly to the IMTE and the requirements to affix the appropriate calibration status labels to storage containers of IMTE that is too small or otherwise unsuitable for direct labeling.

4. The requirements for education, training, technical knowledge, and experience of the personnel performing RECERT calibrations shall be verified by the employer and approved by the RECERT Manager. The employer shall maintain training records via hardcopy and/or electronic methods documenting that personnel meet these requirements. These records shall be easily accessible and available upon request, by the RECERT manager.

5. The procedures shall be established to define and control access to all areas affecting the quality of RECERT calibrations.

6. The procedures shall be established specifying the environment (temperature, humidity, ventilation, etc.) in which RECERT calibrations are performed so that calibration results are not invalidated or required accuracy of measurement is not adversely affected.

7. An assessment of the validity of work done with IMTE subsequently found to be out of tolerance shall be performed in accordance with GPR 8730.1.

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**CHANGE HISTORY LOG**

Revision	Effective Date	Description of Changes
Baseline	05/05/1999	Initial Release
A	02/22/2000	<ul style="list-style-type: none"> <li>- Deleted requirements for maintenance of a master RECERT IMTE list. (4.1) (6.6)</li> <li>- Deleted maintenance of IMTE list as part of RECERT CM schedule providing quarterly recall. (6.7)</li> </ul>
B	02/03/2005	<ul style="list-style-type: none"> <li>- Document reformatted in current PG format</li> <li>- Deleted requirement (old paragraph 4) to formally investigate, determine, and document the reason(s) that IMTE found to be out-of-tolerance went out-of-tolerance.</li> </ul>
C	03/19/2008	<ul style="list-style-type: none"> <li>- Updated to latest PG format</li> <li>- Clarified document Applicability (P2).</li> <li>- Added ANSI/NCSL Z540.1 to References (P4)</li> <li>- Added Paragraphs 4, 5, and 6 to Procedures to capture NCSL Z540.1 requirements.</li> </ul>

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