Title

Precision Filters Training and Technical Instruction

Purpose

The purpose of this effort is to provide technical training for Langley Research Center personnel on the operation, configuration, testing, calibration, and application of Precision Filters, Inc. (PFI) signal conditioning and filtering systems. The training will enhance user proficiency in system operation, measurement techniques, filtering methodologies, and laboratory application of installed PFI equipment.

Scope

Precision Filters, Inc. (PFI) shall provide a three-day OEM led training session covering system infrastructure, measurement applications, self-test and calibration procedures, filtering theory and implementation, and hands-on laboratory exercises utilizing Government-installed PFI precision filter systems.

Tasks

Day 1 – System Overview and Measurement Applications

Precision Filters, Inc shall provide instruction on:

- PFI 28000 System Infrastructure
- PFI 28000 Common Features
- Strain Gage Measurements using the PFI 28144
- Half-Bridge Measurements using the PFI 28144
- Full-Bridge Measurements using the PFI 28144
- Open discussion and question-and-answer session

Day 2 – Testing, Calibration, and Filtering Techniques

Precision Filters, Inc shall provide instruction on:

- Self-Test Capabilities
- Factory Acceptance Testing (FAT) and Calibration Procedures
- Filtering Concepts and Applications, including:
    - Low-Pass (LP) 4-Pole and 8-Pole Filters
    - High-Pass (HP) 4-Pole and 8-Pole Filters
    - Flat versus Pulse Response
    - Low-Pass versus Butterworth Filters
    - Low-Pass versus Bessel Filters
- Open discussion regarding SDAS

Day 3 – Hands-On Laboratory Training

Precision Filters, Inc shall provide practical laboratory instruction utilizing the Government's installed Precision Filters systems. Training shall include equipment setup, operation, configuration, troubleshooting, and application of concepts presented during Days 1 and 2.

Deliverables

The Precision Filters, Inc shall provide:

1. Three (3) days of instructor-led training.
2. Training materials and presentation content used during instruction.
3. Hands-on laboratory demonstrations and practical exercises.
4. Subject matter expert support during open discussion sessions.

Place of Performance

Training shall be conducted at Langley Research Center facility utilizing Langley installed Precision Filters equipment.

Period of Performance

The training shall be conducted over three consecutive days on dates mutually agreed upon by the Government and Precision Filters, Inc.

Acceptance Criteria

Training will be considered complete upon successful delivery of all instructional sessions, laboratory exercises, and associated training materials identified in this Statement of Work.