PERFORMANCE WORK STATEMENT

FOR 509th MXS AUTOFRETTAGE TEST STAND
WHITEMAN AFB

1.0 SCOPE/General Description

The Contractor shall provide all labor, materials, equipment, transportation, and supervision necessary to deliver, install, and provide training for one (1) dedicated AutoFrettage Test Stand system at Whiteman Air Force Base. This equipment is critical to supporting the prestressing and hydrostatic testing of aircraft tubing—specifically for B-2 aircraft maintenance—utilizing distilled water (part number ASTM D 1193 Type III), or equivalent . The system must meet all technical capabilities and safety standards outlined in this Performance Work Statement (PWS).

2.0 Non-Personal Services

The government shall neither supervise contractor employees nor control the method by which they perform the required tasks. Contractor personnel will be escorted into the required areas to complete delivery, installation, and training. The contractor will coordinate all security and base access requirements with the designated 509th MXS point of contact (POC).

3.0 Requirements

The Contractor shall furnish and install a complete, fully integrated AutoFrettage Test Stand system that conforms with the specified technical, physical, and performance criteria of NSN 4920-01-231-1017, part number 9770-0129. The contractor will remove and dispose of the old AutoFrettage test stand and tank.

3.1 Core Component Requirements

The Contractor shall supply the following equipment and components. Due to strict compatibility and technical order (TO) compliance requirements for B-2 aircraft maintenance support, **no substitutions to the listed NSN are permitted**, and the system must be the specified part number equipment:

- **1 each** – AutoFrettage Tester (20,000 PSI capacity), (NSN 4920-01-231-1017, Part Number 9770-0129).
- **1 lot** – Integrated Pneumatic Air Flush System (engineered to fully evacuate water from test parts upon test completion).
- **1 lot** – Heavy-Duty Enclosure Lid Assembly with Pneumatic Cylinders (installed in place of standard gas springs for enhanced safety and lift control).

- **1 lot** – Automated Pneumatic Door Locking System (installed in place of a manual door latch to ensure physical security during high-pressure testing cycles).
- **1 complete set** – Thraxton Hydrostatic Test Adapters (sized to match the full spectrum of B-2 tubing diameters).

3.2 Salient Characteristics & Performance Specifications
The system must meet the following operational and technical requirements:

- **Tubing Support Compatibility:** Must support the prestressing of aircraft tubing ranging in outer diameters from 0.250" to 1.500" in 1/8" increments (corresponding to the standard tubing diameters utilized on the B-2 aircraft).
- **Prestressing Capacity:** Must be capable of safely prestressing tubing at a continuous pressure of 16,000 +1,000 PSI. The pressure will not exceed 15,000 PSI per minute and will hold pressure for no less than 30 seconds.
- **Hydrostatic Testing Capacity:** Must support hydrostatic pressure testing up to a maximum of 20,000 PSI.
- **Testing Medium:** Configured to utilize distilled water (part number ASTM D 1193 Type III), or equivalent, as the primary testing fluid.
- **Enclosure Test Tank Dimensions:** Must feature a heavy-duty, protective test tank measuring exactly 180” (Length) x 36” (Width).
- **Control Station Dimensions:** Must include an integrated control station measuring exactly 36” (Length) x 30” (Width).
- **Utility Requirements:**

    - **Electrical Power:** Must operate on a standard 120V, 20-amp electrical circuit.
    - **Pneumatic Air Supply:** Must operate on clean, dry compressed air at 90-100 PSI.

3.3 Delivery and Installation Services

- **Delivery:** The contractor is responsible for shipping and delivering all equipment to the designated delivery address: *509th MXS, 110 Arnold Ave, Suite 125, Whiteman AFB, MO 65305 (ATTN: 509 MXS/MXMF)*. All shipping must follow standard commercial packaging and crating protocols (heat-treated, stamped wooden crates). The contractor will notify the customer 3 business days before delivery to ensure on-site offloading can be accommodated.

- **On-Site Installation:** The contractor shall provide a qualified technician to unpack, position, level, and perform the complete assembly and integration of the AutoFrettage Test Stand.
- **Removal:** The contractor will disconnect, remove and dispose of the existing AutoFrettage tester, to include the tank and hazardous fluids, with instruction from the asset item manager (404 SMCS/GUMABA) and state EPA guidelines.
- **Utility Connections:** The contractor shall safely connect the system to the facility's existing 120V 20A electrical power supply and clean/dry compressed air lines.
- **System Calibration & Verification:** Prior to government acceptance, the contractor must demonstrate correct system calibration, lack of leaks at peak 20,000 PSI hydrostatic pressure, and the full functionality of safety interlocks (pneumatic door locks and cylinders).

3.4 Training Requirements

- **Scope:** The contractor shall provide a comprehensive **2-Day Test Stand Training** program for up to 10 personnel on-site at Whiteman AFB.
- **Target Audience:** Training must be designed for designated 509th MXS operations and maintenance personnel.
- **Curriculum:** Training must cover, at a minimum:

    1. Safe system start-up, operation, and shut-down procedures.
    2. Prestressing and hydrostatic test sequencing for various tubing sizes.
    3. Pneumatic water evacuation and air flush procedures.
    4. Routine maintenance, lubrication, and seal replacements.
    5. Troubleshooting common faults and emergency stop protocols.

- **Documentation:** The contractor shall supply hard and digital copies of the operating manual, safety guides, technical schematics, and a parts catalog upon training completion.

3.5 Warranty

The contractor shall warrant all supplied equipment, integrated components, and installation workmanship to be free of defects for a minimum period of **one (1) year** starting from the date of final government acceptance.

4.0 Period of Performance

- **Execution Timeline:** Delivery, complete on-site installation, system validation, and the 2-day training program must be finalized within **150 days After Receipt of Order (ARO)**.
- **Hours of Operation:** On-site installation and training shall take place during normal working hours (0730–1600), Monday through Friday, excluding Federal Holidays and Whiteman AFB down days.
- **Housekeeping & FOD Control:** The contractor shall keep the work area organized and ensure it is entirely free of foreign object debris (FOD) at the conclusion of each work shift.

5.0 Security and Safety

- Contractor personnel shall wear appropriate security badges and identification as required by base squadron security procedures.
- Contractor personnel must meet established unescorted installation entry requirements pursuant to AFI 31-101 before base identification will be issued.
- Requests for installation passes must be submitted to 509th MXS security personnel on company letterhead listing the contract number, work locations, performance dates, and the full names, Social Security Numbers, dates of birth, driver's license numbers, and citizenship status of all employees.

6.0 Operational Security (OPSEC)

- The contractor must strictly adhere to the 509 OSS OPSEC Program.
- The use of personal electronic devices (laptops, cellular phones, cameras, and recording devices) in government spaces is strictly controlled and forbidden in designated restricted areas of Whiteman AFB. Photography is prohibited without an official permit.
- Contractor personnel shall not discuss government operations in public or over unencrypted communications. Any public release of information or company press releases related to this contract must be coordinated through the 509th Contracting Office.