



Test Facility Operations Maintenance and Engineering - II (TFOME-II)

Industry Briefing

June 30, 2014

Agenda

- **Monday, June 30, 2014**
GRC Lewis Field Building 8 (GRC Briefing Center) auditorium 21000 Brookpark Rd., Cleveland OH
 - **1:00-1:30 Lewis Field Industry Briefing**
 - **1:30-5:00 Lewis Field Tours**
- **Tuesday, July 1, 2014**
GRC Plum Brook Station Building 7141 (Engineering Building) Assembly Area 6100 Columbus Ave., Sandusky OH
 - **8:00am-8:30am Plum Brook Station Industry Briefing**
 - **8:30am-11:30am Plum Brook Station Tours**
 - **12:00pm-6:00pm One-on-One Sessions**

Introductions

- The complete and final versions of all Industry Day materials will be posted on the Federal Business Opportunities (FBO) site for all potential offerors.
- Attendance at the Industry conference is neither required nor a prerequisite for proposal submission and will not be considered in the evaluation.
- **All Statement of Work (SOW) information provided during Industry Day is based on the DRFP as posted to the FBO site on 06/19/2014.** The Government anticipates a similar structure for the Final RFP, however it is subject to change.

Contract Overview

Title:	Test Facility Operations Maintenance and Engineering II (TFOME-II)
Place of Performance	NASA Glenn Research Center (Lewis Field and Plum Brook Station)
Contract Type	Cost+ Fixed Fee (CPFF) with Indefinite Delivery Indefinite Quantity (IDIQ) Element
Type of Competition	Total 8(a) Set-Aside
NAICS	541712 (1000 employees)
Contract Period	10 years (~ 17 month base, four 2-year options, one 7 month option)
Phase-In	Approximately 60 days

Option to Extend

F.6 OPTION TO EXTEND

In accordance with FAR clause 52.217-9, "Option to Extend the Term of the Contract" of this contract, the contracting officer may exercise the following option(s) by issuance of a unilateral contract modification. Options exercised shall be in accordance with the following:

Option 1 – 24 mths

Option 2 – 24 mths

Option 3 – 24 mths

Option 4 – 24 mths

Option 5 – 7 mths

If at any time after the first five (5) years of the contract the contractor is certified as a large business under the contract's North American Industry Classification System (NAICS) code (541712 for 1000 employees), the government intends to recompet the contract (See 52.219-28, Post-Award Small Business Program Rerepresentation). No further options will be exercised other than those necessary to maintain performance during the recompet.

(End of clause)

Definition of Base/IDIQ

- **Base**

The Base work effort is defined as on-going, repetitive, routine technical activities as described generally in the statement of work (SOW).

- **IDIQ**

The IDIQ work effort is defined as non-recurring, distinct projects that support the work of the SOW but require unusual management, reporting or skills. The type of work activities included are at the contracting officer (CO) or contracting officer's representative (COR) discretion and may include projects with all or a combination of the following characteristics:

- Purchase, modification, refurbishment, repair or upgrade of capital equipment
- Distinct, specific period of performance (well defined start and end dates)
- Unique technical skills not presently in the Base
- Government's need for extra visibility into a requirement
- Separate funding and financial reporting
- Substantive dollar value

RFP Overview

- This procurement will use a best value selection approach. Best value selection will include Mission Suitability, Past Performance, and Cost.
- Contract award based on FAR Part 15 – Contracting by Negotiation
- *Anticipated* Evaluation factors:
 - **Mission Suitability ~ Past Performance ~ Cost**
 - **Mission Suitability plus Past Performance, when combined, are significantly more important than Cost.**
- Only Mission Suitability will be scored (1000) pts.- *Anticipated scores*
 - Management Plan (600)
 - Technical Plan (400)
- *Past Performance Questionnaire is included in the RFP*
- *Cost templates and instructions are included in the RFP*

RFP Overview

1) Mission Suitability (*Anticipated*)

A. Management Plan (600 pts)

- Organizational Structure and Management Approach
- Key Positions/Personnel
- Staffing Management / Skill Mix
- Procurements
- Phase-in

B. Technical Plan (400 pts.)

- Technical Approach and Understanding of the SOW
- Safety, Health and Environmental Approach
- Sample Tasks

2) Relevant Experience/Past Performance

- a) Demonstrate relevant work experience similar in scope and size
- b) Past Performance ratings and questionnaires as it pertains to:
 - Technical/Schedule/Cost/ Performance
 - Business Relations /Effective communication and past record of interfacing with the Government

3) Cost/Price

TFOME-II Acquisition History

Sources Sought Notice was issued in November, 2013

Synopsis was issued in May, 2014

Draft RFP Documents issued on June 19, 2014

- DRFP Solicitation Number: NNC14ZCH015J

Industry Days/Site Visit on June 30 – July 2, 2014

Important Upcoming Dates (Tentative)

- *Due date for Comments/Questions on DRFP – July 10, 2014*
- *Issue Final RFP – July 31, 2014*
- ***Vol II - Proposal Due Date – September 4, 2014***
 - *Past Performance Questionnaires &*
 - *Volume II, Past Performance*
- ***Vol I&III - Proposal Due Date – September 11, 2014***
 - *Volume I, Mission Suitability &*
 - *Volume III, Cost/Price*
- *Evaluations Complete – November, 2014*

Reminders

- **Response to Draft RFP Deadline**

July 10, 2014 - All questions/comments submitted IN WRITING ONLY to

Richard.W.Amiot@nasa.gov

All responses to questions and comments will be posted on the FBO website and attached to the NNC14ZCH015J Solicitation Notice.

- **Communications**

Regarding the TFOME-II procurement, RFP, schedule, etc. should be submitted to the above email address

- **Offeror Responsibilities**

Monitor the Federal Business Opportunities website for updates and amendments to the current notice. In the event of any discrepancy, the information contained in the Request for Proposals (RFP), when posted to the FBO site, shall take precedence.

Statement of Need

- **Re-competition of current TFOME contract**
- **Common pool of engineering, technician and material resources to support multiple test facilities and operations at multiple locations.**
 - **Test planning, preparation and execution at Lewis Field and Plum Brook Station**
 - **Operation, maintenance and repair of test facilities and equipment at Lewis Field and Plum Brook Station**
 - **Test Facility and hardware development at Lewis Field and Plum Brook Station**
 - **Operation, maintenance and repair of institutional systems and provision of institutional services at Plum Brook Station**
 - **In-house fabrication and manufacturing and management oversight of outsourced fabrication and manufacturing**

GRC Test Facilities and Labs

- **GRC has over 400 research and test facilities ranging from large wind tunnels to small R&D labs that are vital tools supporting a large variety of Government and commercial aeronautics and space programs**
 - **Facilities located across two campuses 60 miles apart**
 - **Major Facilities: 4 wind tunnels, 5 large space simulation chambers, 2 air-breathing engine altitude cells, 2 Zero G drop towers, Aero Acoustic Propulsion Lab, Advanced Subsonic Combustion Rig, Small Multipurpose Research Facility**
 - **Component Facilities (~100). turbo machinery, combustion, mechanical components, flow physics/heat transfer, tribology, space simulation chambers, space combustion, fuel cell test facilities**
 - **R&D Laboratories (~300). supporting communication, microgravity, instruments & controls technology, power & propulsion, material & structures**

Lewis Field



GRC Unique Aero Test Facilities



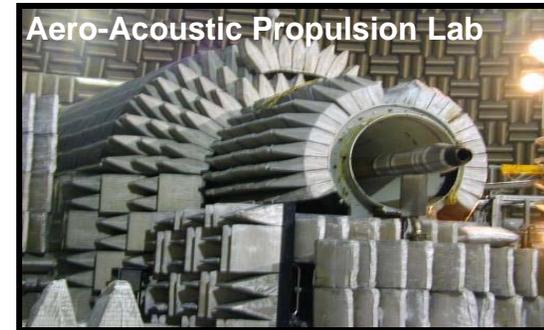
Subsonic Propulsion Wind Tunnels

- Noise suppression
- Inlet/Airframe integration
- STOVL hot gas ingestion



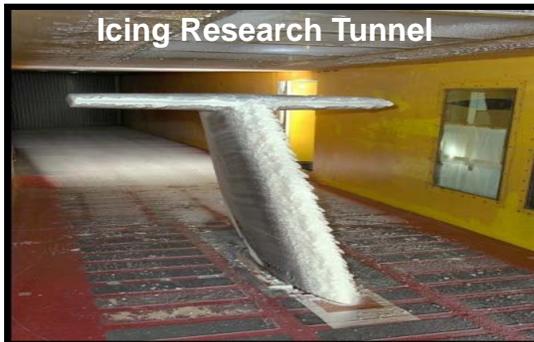
Transonic and Supersonic Propulsion Wind Tunnels

- Advanced propulsion concepts
- Inlet/Airframe Integration
- Internal/external aerodynamics



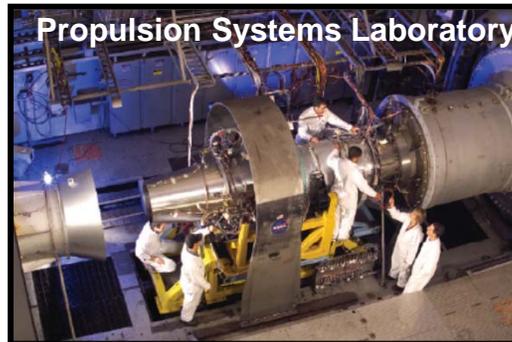
Engine Acoustic Research Facility

- Fan/nozzle acoustics research
- Simulate hot engine nozzles in flight
- Aerodynamic and Aeroacoustic measurements capabilities



Largest Icing Tunnel in US

- Aircraft icing certification
- Ice protection systems development
- Icing prediction/code validation



NASA's only altitude full-scale engine facility

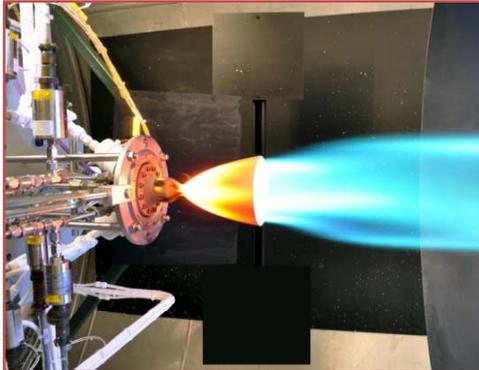
- Engine operability/performance
- High altitude, inlet distortion simulation
- Nozzle-engine integration/development



Over 50 Versatile Engine Component Facilities

- Combustor and Heat Transfer
- Compressor and Turbine
- Inlets and Nozzles

Lewis Field Unique Space Facilities

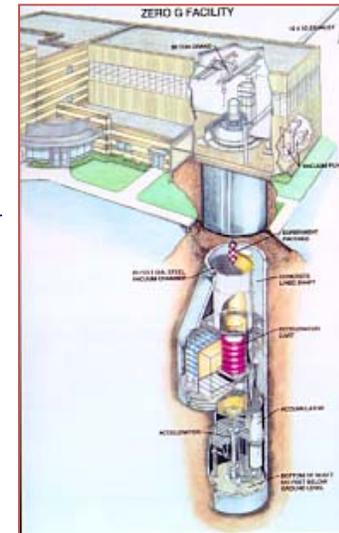


Combustion Research

Advanced Rocket Propulsion
Materials Research
Ignition Technology
Diagnostics

Reduced Gravity

Combustion Science
Fluid Physics
Materials Research



Space Simulation

Advanced Electric Propulsion
Space Power
Energy Storage
Integrated Power/Propulsion Systems

Cryogenic Fluid Management

Cryogenic Insulation
Cryogenic Propellant Systems
Low-Gravity Cryogenic Gauging



GRC Manufacturing Competencies/Capabilities

Precision Machining

- CNC Turning and Milling
- Precision Machining
- Wire, Die Sink, and Micro EDM



Services

- Manufacturing Engineering
- Assembly & Inspection
- Developmental and Flight Hardware
- Art-To-Part

**Glenn Research Center is
ISO9001/AS9100 Rev C Certified**

Fabrication

- Abrasive Water Jet Cutting
- Welding and Plasma Cutting
- Sheet Metal Fabrication
- Rolling to 10 ft. Wide

Instrumentation

- Intricate Custom Installations
- Electron Beam Welding
- Laser Welding & Cutting
- Micro Brazing

Avionics

- Flight qualified technicians
- Custom Card Populating
- Cable and Harness Fabrication



Ares Super Segment



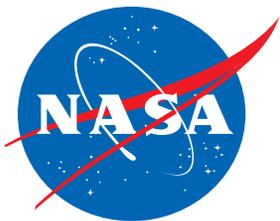
Round to Rectangular (Nozzle)



SCaN Testbed Flight Hardware



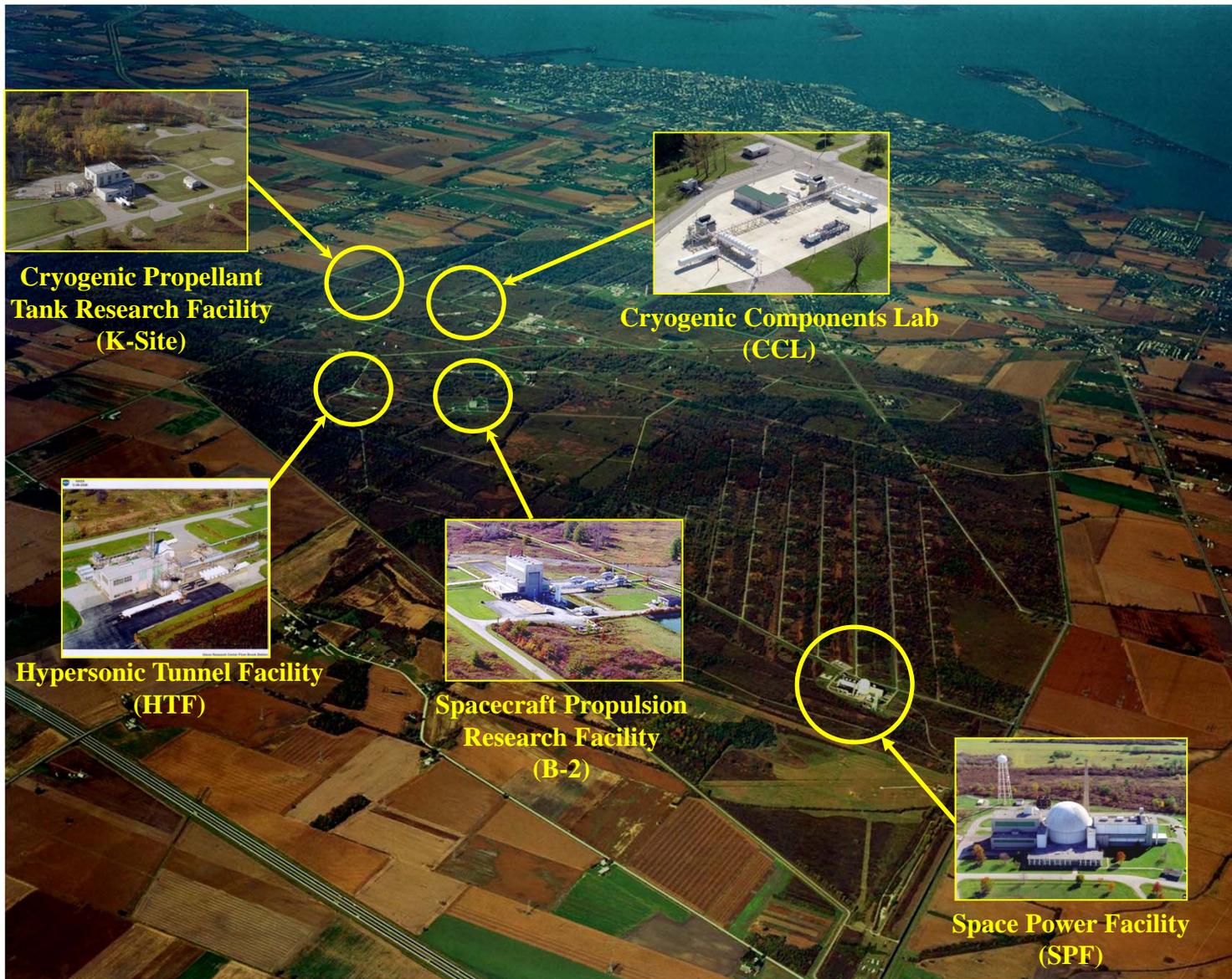
Instrumented Aero Hardware



Plum Brook Station



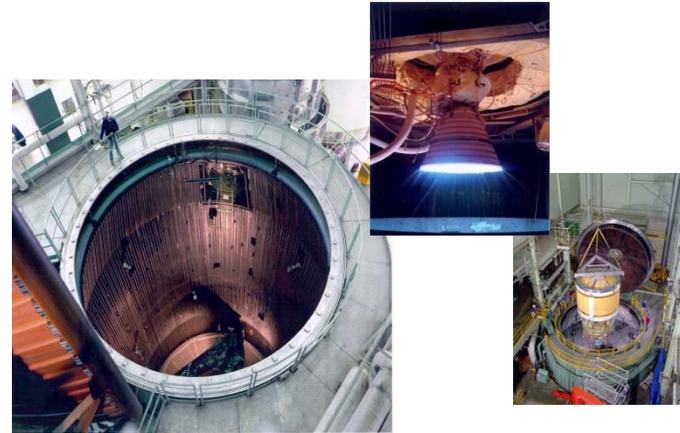
Plum Brook Station



Plum Brook Station Unique Test Facilities

Propulsion Test

Liquid Engine/Stage Testing
Thermal-Vacuum
Cold-soak Start / Restart
Altitude Hot-fire



Space Simulation

Thermal-Vacuum (world's largest)
Reverberant Acoustic
Mechanical Vibration
Reverberant EMI/EMC

Cryogenic Testing

Cryogenic Component/Subsystem/System
Propellant Densification
Pressure Systems



Plum Brook Station Institutional Support

Preventative and corrective maintenance activities

- 6400 acres
- Building maintenance
- Roads, parking lots, walkways
- Security fences and gates
- Life safety systems
- Comm systems
- Electrical distribution
- Natural gas
- Domestic and raw water
- Storm and sanitary sewers
- Drainage systems



One-on-One Sessions

- **Each Offeror should have already received their session assignments from GRC**
 - If not, see Rich Amiot asap
- **Location:**
 - Plum Brook Station Engineering Building room 223
- **Plan to arrive early**
- **Each session is limited to a maximum of 25 minutes**
- **GRC Participants**
 - Contracting Officer, Lewis Field Technical Representative, Plum Brook Station Technical Representative
- **Notice:**
 - **The Government will not provide advice to potential offerors on what to propose or what will elicit a favorable rating. NASA will not indulge in hypothetical questions (e.g. “if we propose this, how would NASA rate it?)**

