

Task Order Statement of Work (SOW)

Date: 2/24/19

Task Name: WFIRST Propulsion Design Support

Task No. / Mod: 35/7

Task Monitor (TM): Alison Rao

Contract number: NNG15CR65C

Contract SOW Reference: FUNCTION 2- IMPLEMENTATION PHASE SERVICES-
DISCIPLINE SPECIFIC SERVICES

Task Mod Summary: This modification extends the period of performance.

I. Scope

- a. Background – WFIRST (Wide-Field Infrared Survey Telescope) is an in-house GSFC mission designed to settle essential questions in the areas of dark energy, exoplanets, and infrared astrophysics. This satellite requires a chemical propulsion system to reach its orbit at Earth-Sun L2, for orbit maintenance, and for momentum unloading.
- b. Summary of work – The work herein is to perform the design and layout of the propulsion system components and associated thermal and mechanical hardware.
- c. Required skills/knowledge – The propulsion designer will have specialized experience with propulsion system design practices and constraints. They must also be experienced with appropriate CAD software and able to perform complex design tasks for highly integrated propulsion systems.

II. Period of Performance

The original task has a period of performance of 5/16/16-5/16/17.

Modification 1 added Subtask 2 with a start date of 10/14/16.

Modification 2 extended the period of performance of Subtask 1 to 5/16/18 and Subtask 2 to 11/16/18.

Modification 3 changed the TM.

Modification 4 changed back to the original TM.

Modification 5 extends the period of performance of Subtask 1 to 5/16/19. Subtask 2 will not be extended.

Modification 6 extends the period of performance of Subtask 1 to 5/16/20.

Modification 7 extends the period of performance of Subtask 1 to 9/30/20 when the TIDES contract is scheduled to end.

Modification 8 extends the period of performance of Subtask 1 to 4/14/21.

III. Subtask Description

Subtask 1: WFIRST

1. The propulsion designer shall provide management of all design and hardware tasks related to the spacecraft propulsion system, these phases include but are not limited to, requirements definition, design, analyses, integration, test, propellant loading, launch & mission operations activities.
2. The designer shall lead the development of propulsion design requirements for the specific program.
3. The designer shall provide a written monthly status report to the Task Monitor summarizing all major activities & issues related to the spacecraft propulsion system. The report may be summarized verbally at the Propulsion Branch meetings or submitted in writing/email to the Task Monitor. The status report shall be provided to the Task Monitor monthly. The report shall include a status of the contractor's certification status and renewal dates as applicable.

Subtask 2: GEDI

1. The designer shall provide management of all design and hardware tasks related to the instrument fluid system.
2. The designer shall provide a written monthly status report to the Task Monitor summarizing all major activities & issues related to the instrument fluid system. The report may be summarized verbally at the Propulsion Branch meetings or submitted in writing/email to the Task Monitor. The status report shall be provided to the Task Monitor monthly. The report shall include a status of the contractor's certification status and renewal dates as applicable.

Note: Subtask 2 is complete and will not be extended past 5/16/18.

IV. Deliverables/Schedules/Milestones

EXAMPLE: At a minimum, the contractor shall deliver the items specified below:

<u>Ref#</u>	<u>Deliverables</u>	<u>Due Date</u>
1	Status Reports	Weekly/Bi-weekly
2	Performance Reports	Monthly
3	End-of-task Report	End of task

V. Management Approach

- a. Staff Allocation, Expertise, and Skill Mix

The contractor shall staff this work item with the appropriate skill mix and staffing level for the work.

b. Configuration Management

Systems and documents will be covered under the Project Configuration Management Plan.

c. Facilities

N/A

d. Risk Management and Best Practices

The contractor shall manage schedule, cost, and technical risk through monitoring and reporting of progress and performance metrics, identifying issues well in advance of negative consequences, recommending corrective action to the TM, and implementing corrective actions with the compliance of the TM.

e. Performance Metrics

The work performed for this task will be evaluated by the TM based on the technical merit. Technical evaluation of the task performance is a subjective combination of performance metrics, technical quality of deliverables, cost control, significant events, innovations and meeting requirements set forth in the SOW.

f. Government Furnished Facilities, Equipment, Software and Other Resources

The Government will provide account and passwords to government-furnished workstations where existing versions of various relevant software packages shall be maintained. It shall be the contractor's responsibility to complete any GSFC required security-related training courses.

g. Quality Assurance Requirements

The contractor providing technical services shall comply with processes established for the Project and deliverable products as detailed in the Mission Assurance Requirements (MAR).

VI. ODC (Travel and Procurement)

There is no non-local travel for this SOW.

VII. Work Location

This work shall be performed primarily at the Goddard Space Flight Center (On-site).

VIII. Reporting Requirements

a. Weekly or Bi-weekly status report

The contractor shall generate Performance Reports every week or bi-weekly. The report shall include, as a minimum, a summary of the weeks highlights/accomplishments, milestones/schedule/deliverables, risks and customer meetings.

b. Monthly performance report

The contractor shall report status in person or via teleconference to the TM or designated alternates on a monthly basis. Reports shall include informal presentation of interim results, status of development activities, and action item status. The contractor shall provide all reports at least one day in advance of the monthly meeting via email, and maintain an email distribution list with the concurrence of the TM. The contractor shall also support the TM in the preparation of status reviews for internal and external funding agencies. The contractor shall comply with any and all additional requests for status meetings and reports.

IX. Security Requirements

The contractor shall comply with Information Technology Security procedures and requirements as defined by NPG 2810.1A in the performance of this task. In addition, the contractor shall comply with all applicable federal rules and regulations and agency directives.

X. Data Rights

This SOW shall adhere to all Data Rights Clauses as stated in the TIDES contract.

XI. Applicable Documents

N/A

XII. References

N/A