

Task Order Statement of Work (SOW)

Date: July 13, 2020

Task Name: Balloon Program Office WASP, Instrumentations, and Additional Projects as Required

Task No. / Mod: 3/14

Contract number: NNG14WA48C

POP: 8/1/2020 to 7/31/2021

The purpose of Modification 14 is to extend the POP/increase scope ~~add overtime~~ and add procurements. Corrections in this SOW (crossed out verbiage) reflect the inaccurate POP that was initially proposed. The correct POP for Mod 14 is 8/1/2020 to 7/31/2021. Since the task cannot be extended for more than 12 months at a time, OT and travel are no longer applicable to Mod 14.

1. Scope

- a. Background – The Balloon Program Office (BPO) requires support for WASP, Instrumentations, and other BPO Projects.
- b. Detailed Summary of work – For the WASP, SPB Instrumentation and other projects, perform mechanical technician and electrical technician activities as needed to support fabrication, assembly, integration, test, field preparation, field recovery, shipment preparation, post-flight repairs, refurbishment, and enhancements of WASP and other balloon flight and ground systems as needed. The mechanical technician work is significant in scope and duration, and the electrical technician work is more limited and intermittent. Flight system configurations and launch locations vary and are dependent on science detectors being flown and science requirements. Schedules for all activities and requirements in support of this task shall be available from the Code 820 Task Monitor. The majority of Supplies and Materials in support of this requirement will be provided by the government and the contractor will provide the remainder as needed.

The general scope of activities includes the following:

- Machine simple metal parts using machine shop in Building F-7.
- Mechanically assemble and test subsystems and systems. Systems may include WASP gimbal frames, latch assemblies, Avionics decks, gondola frames, hub assemblies, and Rotator assemblies.
- Mechanically integrate systems into balloon gondola frames and other systems that are either built in-house or supplied by science groups.
- Support logistics activities including packing and loading equipment.
- Support disassembly, inspection and refurbishment of mechanical hardware as needed.
- Support mechanical and electrical modifications and enhancements as needed, including new fabrication, assembly and test.

- Support electrical wiring of WASP avionics decks and gondola frames as needed.
- Provide mechanical support during integration and test at WFF, Fort Sumner, and CSBF as needed. This support may include overtime hours as needed.
- Support flights at Fort Sumner, and elsewhere as needed. This support may include overtime hours as needed (see below).
- Support refurbishment of recovered systems.
- Provide materials as needed. Cost of materials needed is estimated at \$200k for the various projects.
- Electrical Technician support is needed for the ACER 2020/2021 electronics assembly and test, and the Super Pressure Balloon (SPB) Instrumentation electronics wiring and test.
- Support BRDL as requested.

WESC shall:

- Ensure continued Mechanical Engineering (ME) support as needed.
- Provide System Engineering assistance to Code 598 for the WASP Project system engineering efforts for the science missions.

These hours are the government's expectation, and it is up to the contractor to manage time and overtime during these periods. Certifications for mechanical forklift and crane operations are highly desired. Electrical certifications for harnessing, crimping and soldering are highly desired. Other training and certifications may be required.

- c. Security Requirements – US Citizen, no special clearance required other than stated by governing laws.

2. Period of Performance

The period during which the work for this task modification shall be performed is from 8/1/2020 to 7/31/2021.

3. Modification History

Modification 13: Admin Change – Change TM from David Stuchlik to Keon Harmon

Modification 12: Admin Change – RA changed to Stephani Snead from Tina Wessells

Modification 11: Modified SOW to add updated travel, New GCE for POP 11/18/2019 to 11/17/2020

Modification 10: This modification is for the contractor to provide an additional \$90,000 of materials in support of Code 820's Instrumentation Project. An ATP is requested for the contractor to begin providing these materials as soon as possible.

Modification 9: This modification adds the following work through task end date: The contractor (WESC) shall also provide System Engineering assistance to Code 598 for the WASP Project system engineering efforts for the BITSE and PICTURE-C missions.

Modification 8: This modification extends the Period of Performance from 03/31/2019 to 11/30/2019, and includes travel activities to Texas, and New Mexico, adds electronics assembly and testing for the ACER and various Balloon Project. It also includes the provision for adding additional hours during travel launch campaigns, and hardware integration.

Modification 7: This modification extends the Period of Performance from 03/31/2018 to 03/31/2019. It includes travel activities to Texas, New Mexico, and Antarctica. It also includes the provision for overtime.

Modification 6: This modification adds funding for the purchase of materials. In addition to the SOW, this Task Plan notates clarity for actual travel activities to New Mexico.

Modification 5: This modification adds funding for the purchase of materials.

Modification 4: This modification extends the period of performance to 3/31/2018 and adds new travel requirements and adjustments to labor resources.

Modification 3: This is a request for increase in estimated cost for the task in accordance with Contract Clause B6 – Estimated Cost Increases, as it applies to WESC.

Modification 2: Additional support to include: I&T, alignment and field operations at Ft. Sumner, NM.

Modification 1: Task date extended from 11/30/15 to 3/31/2017. Perform electrical technician activities as needed to support fabrication and assembly for the wire harness of the Rotator 2.0 Project (iRACE Project). Wire harness fabrication and other related activities are required.

Modification 0: 12/1/2014 – 11/30/2015

Deliverables/Schedules/Milestones/ (Specifically required for this task)

During period, specific reports and meeting will be required; these will include weekly email statuses, monthly, status, and performance.

4. Place of Performance

Activities are currently planned to take place at Wallops Flight Facility.

5. Special Requirements/Other Comments

None.