JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION (JOFOC)

In-Orbit Demonstration and Extended Data Acquisition of a Hyperspectral Microwave Sounder (HyMS)

Identification Number: *1332KP22CNEEP0014*

1. **Identification of the agency and contracting activity.**
   The NOAA Acquisition and Grants Office (AGO), Satellite and Information Acquisition Division (SIAD), proposes to enter into a contract modification on the basis of other than full and open competition in support of the Office of Systems Architecture and Engineering (SAE), National Environmental Satellite, Data, and Information Service (NESDIS), NOAA.

2. **The nature and/or description of the action being approved.**
   NOAA intends to enter into a bilateral contract modification with Spire Global Inc. Contract number 1332KP22CNEEP0014 was originally awarded on September 21, 2022. This modification will increase the contract value by $5,000,000.00 and extend the Period of Performance (PoP) by 12 months (October 01, 2026 – September 30, 2027) to accommodate the additional data acquisition services.

   The contract has maintained continuous performance through the following bilateral supplemental agreements:

   - **Original Award:** September 21, 2022 – September 30, 2024.
   - **Modification P24003 (Executed 09/17/2024):** Extended the PoP by five (5) months to February 28, 2025. This was a bilateral No-Cost Extension (NCE) required to allow sufficient time for payload thermal testing and to address a material 8-month slip in the SpaceX Dawn/Dusk launch schedule.
   - **Modification P25004 (Executed 02/21/2025):** Further extended the PoP to September 30, 2026. This bilateral NCE was necessitated by SpaceX officially rescheduling the target launch from February 2025 to October 2025. Spire elected to remain on this specific launch to ensure thermal stability for the sensitive radiometers, which is critical for high-quality data collection.
   - **Modification P25005 (Executed 04/30/2025):** Added in-scope airborne and ground-based campaigns (HyMS Campaign 2025) to validate sensor performance, while maintaining the September 30, 2026, PoP end date.

   There has been no lapse in the period of performance. Each extension was executed bilaterally prior to the expiration of the then-current period of performance to account for third-party launch delays outside of the contractor's control.

3. **A description of the supplies or services required to meet the agency's needs (including the estimated value).**
   The project scope involves maturing the HyMS instrument from airborne state to a spaceborne mission on a Spire 16U LEMUR satellite. The space in-orbit demonstration mission will collect, process, and deliver Level 1 HyMS data (science-grade brightness temperature) to NOAA in NetCDF format. This action adds additional data collection services and extends the PoP for an additional 12 months (10/01/2026 – 09/30/2027).

   The underlying requirement necessitates data from a space-borne instrument because global Numerical Weather Prediction (NWP) models require the synoptic, wide-area coverage that only an on-orbit platform can provide. While airborne or ground-based campaigns provide localized validation, only a space-borne sensor can capture data across vast oceanic and polar regions where traditional weather observations are sparse. This global data is essential for the NESDIS Commercial Data Program to conduct a comprehensive evaluation of the technology's impact on NWP models across a full annual atmospheric cycle, including peak hurricane and polar winter regimes.

   Furthermore, this acquisition is driven by FY26 Congressional Direction for "NOAA to use Broad Agency Announcements to investigate new technologies for weather forecast improvement. The recommendation

includes $5,000,000 for NOAA to transition its ongoing research with the private sector into a competitively awarded demonstration for hyperspectral microwave sounder technologies and data for the procurement of private-sector HyMS data through the Joint Venture Program." To meet this legislative directive, NOAA would like to leverage Spire's In-Orbit demonstration mission to procure additional data through this contract. Spire is the sole provider with an operational space-based satellite capable of providing this type of data. This requirement cannot be satisfied through a new competitive procurement and development cycle.

The estimated value of this action is $5,000,000.00. This modification increases the total contract value from $4,750,000.00 to $9,750,000.00. The period of performance for this specific data acquisition effort is expected to run through September 30, 2027, following the requested 12-month extension to the current contract expiration.

4. **An identification of the statutory authority permitting other than full and open competition.**
The statutory authority permitting other than full and open competition is 41 U.S.C. 3304(a)(1) as implemented by the Federal Acquisition Regulation (FAR) Subpart 6.103-1 entitled, Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements.

5. **A demonstration that the proposed contractor's unique qualifications or the nature of the acquisition requires using the authority cited.**
Spire Global Inc. (8000 Towers Crescent Dr, Vienna, VA; UEI: LJ68J1MQ3MV7) is uniquely qualified to provide these services based upon the following:

   - Existing In-Orbit Infrastructure: Spire successfully launched the HyMS instrument integrated on a proprietary 16U LEMUR platform on January 11, 2026. Currently, no other commercial vendor has an equivalent hyperspectral microwave sensor in orbit or a scheduled launch capable of meeting the immediate data needs of the NOAA mission. Specifically, the requirement for space-borne, synoptic Level 1 microwave sounding data over oceanic and polar regions. Because Spire is the only vendor with a currently operational sensor, they are uniquely positioned to provide the full annual atmospheric cycle of data required without the multi-year delay inherent in launching a new platform.

   - Continuity of Research: The original R&D goal to "assess impact on NWP" requires this additional dataset to capture a full annual atmospheric cycle, including hurricane seasons and polar winters. Interruption of this specific data stream would invalidate current data assimilation (DA) tuning and quality control (QC) processes specifically calibrated for [redacted]

   - Unacceptable Delays: While other entities (such as NASA/GSFC and NASA/JPL) are developing hyperspectral microwave prototypes, their current systems (CoSMIR-H and HAMMR-HD) are limited to airborne or balloon-borne deployments at Technology Readiness Level (TRL) 5/6. These platforms lack the space-qualification and thermal management systems required for an in-orbit mission. As established in Section 3, NOAA has an immediate requirement for space-borne synoptic data to captures a full annual atmospheric cycle and satisfy FY26 Congressional Directives. Because these alternative systems would require a multi-year development cycle to achieve spaceborne flight-qualification, they cannot meet the Government's mandatory timeframe. Any attempt to compete this requirement would result in a multi-year gap in data acquisition, directly violating the legislative directive to procure the HyMS data in FY26.

6. **A description of efforts made to ensure that offers are solicited from as many potential sources as possible, including whether a notice was or will be publicized as required by FAR Part 5 and, if not, which exception under FAR Part 5 applies.**
The SAE program office and SIAD previously solicited available capabilities from the industry through the original BAA-NOAA-HyMS-2022. While multiple vendors received R&D awards for airborne prototypes, market research conducted in early 2026 confirmed that Spire remains the only source with a space-qualified, on-orbit system ready for immediate operational evaluation.

The mandatory 15-day synopsis requirement under FAR 5.101 was satisfied via the publication of a Presolicitation Notice (Notice of Intent to Sole Source) on SAM.gov from May 1, 2026, through May 16, 2026. No capability statements or proposals were received from industry in response to the notice. Consequently, the Government will proceed with the sole-source strategy as no other vendor demonstrated the ability to meet the mission's technical requirements within the necessary timeframe.

7. **A determination by the contracting officer that the anticipated cost to the Government will be fair and reasonable.**
The Contracting Officer (CO) determines that the anticipated price for this contract modification will be fair and reasonable. In accordance with FAR 15.403-3(a), the Government will require Spire Global Subsidiary, Inc. to submit Certified Cost or Pricing Data, as the proposed action exceeds the $2.5 million threshold and no exceptions under FAR 15.403-2 apply to this non-commercial research and development effort.

   Prior to the conclusion of negotiations, the CO will perform a detailed cost and price analysis in accordance with FAR 15.404-1 and 15.402-2. This evaluation will include:

   - **Cost Analysis:** A review of the contractor's underlying cost elements, [redacted], to ensure they are allocable and reasonable for the 12-month data acquisition period.
   - **Historical Price Comparison:** A comparison of the proposed [redacted] against the prices established during the original competitive selection under BAA-NOAA-HyMS-2022.
   - **IGCE Comparison:** A validation of the proposal against the Government's Independent Government Cost Estimate (IGCE), which was refined specifically for this 12-month expanded scope.
   - **Certification:** The contractor will be required to submit a Certificate of Current Cost or Pricing Data in the format specified in FAR 15.403-4, certifying that the data submitted are accurate, complete, and current as of the date of agreement on price.

   These comprehensive measures will ensure that the final negotiated fixed price represents the best value and is fair and reasonable to the Government.

8. **The market research conducted (see FAR Part 10) and the results or a statement of the reason market research was not conducted**.
Market research was conducted by SAE program office and SIAD to identify available sources and to evaluate the availability of the marketplace to meet the requirement as follows:

   The technical team evaluated the current TRL and on-orbit status of all awardees from the original BAA-NOAA-HyMS-2022, specifically focusing on NASA/GSFC and NASA/JPL. The research confirmed that while these entities continue to develop hyperspectral microwave prototypes, their current capabilities are limited to airborne (CoSMIR-H) or high-altitude balloon (HAMMR-HD) platforms which lack the space-qualification and thermal management systems (radiators/power dissipation) required for this mission.

   Based on the results of market research, the government determined that a limited number of vendors were/are available but none possessed the capability to provide space-grade, in-orbit hyperspectral microwave sounding data within the timeframe required to meet FY26 Congressional Directives and ensure the continuity of Numerical Weather Prediction (NWP) impact assessments.

9. **Any other facts supporting using other than full and open competition.**
This modification is necessary to avoid a break in research for the LEO NEON and Commercial Data Programs, critical mission requirements. The Government has already invested approximately $4.75M in this specific architecture. Restarting with a new vendor would waste this multi-year investment and violate FY26 Congressional Directives to procure hyperspectral microwave sounder data.

Spire Global Inc. possesses the unique qualifications and specialized capabilities required to perform this requirement. An open competition to complete the work would cause intolerable delay to SAE and pose a risk to the Government. The requirement cannot be modified in any manner to increase competition due to investment waste and congressional directives.

10. **A listing of the sources, if any, that expressed an interest in the acquisition in writing.**
In accordance with FAR Part 5.101, a Notice of Intent (NOI) to Sole Source was publicized on the Government-wide point of entry (SAM.gov) from May 1, 2026, through May 16, 2026.

As of the closing date of the formal notice period, no sources indicated a written interest in the acquisition or provided a capability statement demonstrating the ability to satisfy the Government's requirements. Aside from a general market inquiry from a hardware sub-component manufacturer (GomSpace) regarding long-term acquisition strategies, no viable sources emerged. Therefore, the Contracting Officer determined a sole-source award is appropriate.

11. **A statement of the actions, if any, the agency may take to remove or overcome any barriers to competition before any subsequent acquisition for the supplies or services required.**
NOAA will continue to conduct market research and monitor the TRL advancement of airborne and balloon-borne prototypes developed by other vendors. Furthermore, the NESDIS Commercial Data Program is currently developing the Space-Based Environmental Monitoring (SBEM) data procurement vehicle. It is anticipated that Hyperspectral Microwave Sounder (HyMS) data will be established as a functional category under this upcoming IDIQ solicitation, which will be issued on a full and open basis. This will allow all capable vendors who achieve space-qualification to compete for future long-term data acquisition requirements, effectively removing current barriers to competition.

12. **CERTIFICATION**

The JOFOC has been prepared and certified by:

Technical/Requirements Personnel:

I certify that the above narrative is accurate and contains complete data necessary to support the recommendation for other than full and open competition. I further certify that the narrative verifies the Government's minimum needs or schedule requirements and any rationale used to justify other than full and open competition procedures.

[redacted]

_____
Date

Contracting Officer:

I certify that the data supporting the recommended use of other than full and open competition is accurate and complete to the best of my knowledge and belief.

[redacted]

_____
Date

13. REVIEW and CONCURRENCE

Review:

Office of General Counsel

[redacted]

_____
Date

Concur:

Head of Contracting Office

[redacted]

_____
Date

14. APPROVAL

[redacted]

_____
Date