



DEPARTMENT OF THE NAVY
NAVAL RESEARCH LABORATORY
4555 OVERLOOK AVE SW
WASHINGTON, DC 20375-5320

Purchase Request No.: 57-3005-22

J&A No.: J&A13.501-22-KN01

Estimated Cost: [REDACTED]

Justification for Other than Full and Open Competition Under Simplified Procedures For Certain Commercial Items In Accordance With Federal Acquisition Regulation (FAR) 13.5

On the basis of the following, I, as the Contracting Officer, hereby approve the use of a sole source proposed contractual action pursuant to the authority of: ☒ 41 U.S.C. 1901 ☐ 41 U.S.C. 1903

- 1. The U.S. Department of Navy, Naval Research Laboratory Contracting Division proposes to enter into a sole source purchase order with Keysight Technologies under simplified procedures for certain commercial items included in FAR Subpart 13.5.**
- 2. The nature and/or description of the action being approved, i.e., sole source under procedures for certain commercial items in accordance with FAR 13.5.**

This action requests approval for the use of other than full and open competition, on a brand name basis, as implemented by FAR 13.501(a).

- 3. A description of the supplies and/or services required, including the delivery schedule and/or the period of performance (inclusive of all option periods), and the estimated dollar value of the acquisition.**

This is a new requirement for the purchase of RF Channel Emulator, one component of a 5G wireless network testbed. The delivery schedule is within 120 days of award, and the estimated dollar value is [REDACTED]

- 4. The statutory authority permitting sole source.**

The authority for permitting other than full and open competition is 41 U.S.C. 1901(e)(2), implemented by FAR 13.501(a).

☒ 41 U.S.C. 1901 ☐ 41 U.S.C. 1903

- 5. A statement demonstrating the unique qualifications of the proposed contractor or the nature of the action requiring use of the authority.**

[REDACTED] only Keysight Technologies brand name equipment is a potential source for the required RF Channel Emulator. Upgrading an existing 24-channel channel emulator to 64 channels is more cost effective than purchasing a new 64 channel – channel emulator that can meet all NRL's requirements.

- 6. A description of efforts made to ensure offers/quotes are solicited from as many potential sources as is practicable, including whether a notice was or will be publicized in www.sam.gov (as required by FAR Subpart 5.2) and, if not, which exception under 5.202 applies.**

A notice was posted to www.sam.gov in accordance with FAR Subpart 5.2 for ten (10) days. Two responses were received from Keysight Technologies, and TestMart (authorized reseller of Keysight). Therefore, a total of two known sources exist, Keysight and its one authorized reseller.

- 7. The anticipated dollar value of the proposed acquisition, including options if applicable, and a determination by the contracting officer that the anticipated cost to the government will be fair and reasonable.**

The anticipated cost to the Government is [REDACTED], and no options are applicable. The Contracting Officer will determine through price analysis that the anticipated cost to the Government for the equipment covered by this J&A is fair and reasonable in accordance with FAR 15.404-1(b)(2), by comparing proposed prices to historical prices for the same or similar items, and/or comparing prices obtained through market research for similar items.

- 8. A description of the market research conducted and the results or the reason market research was not conducted.**

A notice was posted to www.sam.gov in accordance with FAR Subpart 5.2 for ten (10) days. Two responses were received from Keysight and TestMart (authorized reseller of Keysight). Therefore, a total of two known sources exist, Keysight and its one authorized reseller.

- 9. Any other facts supporting the use of sole source.**

Cellular communication networks are rapidly evolving from 4G to 5G as commercial wireless network carriers accelerate their network upgrades worldwide. 5G cellular communication networks and ancillary networking technologies are expected to become a significant testing and verification challenge for the US Navy Electronic Warfare and Cyber Operations research communities. To enable Over the Air (OTA) testing in laboratory environment, NRL plans on upgrading an existing Keysight F8800ARF1 PROPSIM 24 Channel RF propagation channel emulator to 64 Channels with support for the FR1 (Sub-6GHz) 5G frequency band and optionally the FR2 n260 (39 GHz) band. The 5G radio channel is complex, has highly dynamic fading, uses 3D beamforming, and has a highly blocking channel due to Massive MIMO and MMW hybrid beamforming with wide signal bandwidth. This upgrade will allow the RF channel emulator to emulate all of the 5G channel propagation properties, phased array beamforming and real-life deployment scenarios where a 5G cell phone can be moving. It will allow for focused protocol testing prior to real OTA testing, it will save time in research and development of the 5G technologies

- 10. A listing of the sources, if any, that expressed in writing, an interest in the acquisition.**

Two vendors: Keysight and TestMart (authorized reseller of Keysight responded to Notice N00173-22-RFI-KN03.

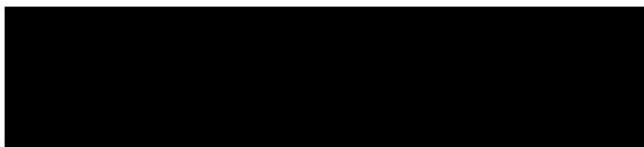
11. A statement of the actions, if any, the agency may take to remove or overcome any barriers that led to the restricted consideration before any subsequent acquisition for the supplies or services is made.

Code 5700 routinely monitors the commercial marketplace using the internet and publications to stay informed on current state-of-the-art laboratory equipment alternatives that could be used to further work at NRL. The Government will look to compete future requirements for laboratory equipment. The Government will also monitor whether Keysight and its authorized reseller establish additional authorized resellers to broaden competition.

CERTIFICATIONS AND APPROVAL

TECHNICAL/REQUIREMENTS CERTIFICATION

I certify that the facts and representations under my cognizance, which are included in this Justification and its supporting acquisition planning documents, except as noted herein, are complete and accurate to the best of my knowledge and belief.

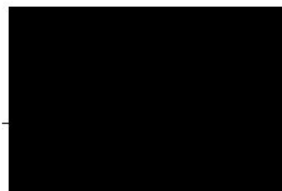
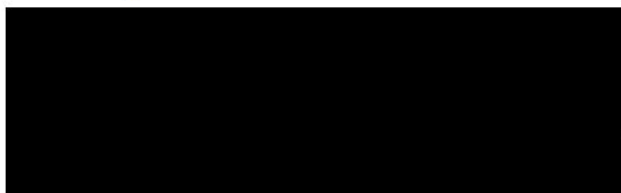


16 Aug 2022

Date

CONTRACTING OFFICER CERTIFICATION

I certify that this Justification is accurate and complete to the best of my knowledge and belief.



15 Aug 2022

Date