SINGLE SOURCE DETERMINATION USING
SIMPLIFIED ACQUISITION PROCEDURES (SAP)
FOR AN ACTION NOT EXCEEDING THE SIMPLIFIED ACQUISITION THRESHOLD
(AUTHORITY: FAR 13.106-1(b)(1))

(Insert PR/RFQ number, as applicable)

1. **Agency and contracting activity.** Department of Commerce, NOAA Acquisition and Grants Office (AGO), Ocean Exploration Research Division (OERD) and NOAA Pacific Marine Environmental Laboratory (PMEL).

2. **Description of supplies or services required to meet agency needs (including the estimated value).**

   This request is for an order of n=27 burn wire releases and n=4 re-arming kits to be used for the deployment of 24 Pop-Up floats built in-house at the Ecosystem-Fisheries Oceanography Coordinated Investigations (EcoFOCI) lab under the Innovate Technologies for Arctic Exploration (ITAE) program, as well as the deployment of 2 Pop-Top moorings at the M8 site to collect surface temperature data through the winter months. The Pop-Top moorings are a project led by the Engineering Development Division (EDD) and integrate the Pop-Up design into a mooring. All moored systems that require the burn wire release will be deployed between July and September 2019 throughout the Bering and Chukchi Seas.

   The requested burn-wire releases attach the floats to their anchors and subsequently release the floats from the anchors at a pre-programmed date and time. The burn wire releases are programmed and controlled by a small circuit board switch that will be housed inside a 12” trawl float and powered by an independent battery pack supplying 18V.

   DBV Technology sells units (Model DBV-BW-RBA-002C) which include a release block, cable connectors and bulkhead penetrator and a control circuit board for $585 each. Additionally DBV Technology sells burn wire re-arming kits for $95 each. The re-arming kits would allow us to test the release block and replace the sacrificial wires for re-use after testing. Total estimated cost for 27 burn wire release block units and 4 re-arming kits will be $16,175.00. We respectfully request procurement through an individual purchase order.

   To provide enough time to package and ship equipment prior to the summer field season, **anticipated delivery date shall no later than June 24th 2019**. We are requesting this procurement be made as soon as possible.

3. **Identification of the single source or the brand name to be solicited.**

   DBV Technology, 161 Woodmist Way North Kingstown, RI 02852,
   Dr. Bud Vincent, 401-714-3803, info@dbvtechnology.com

4. **Supporting rationale.** Only one source or brand name is reasonably available as detailed below:

✔ Compatibility to existing systems or equipment - The required supplies or service must be compatible in all aspects (form, fit, and function) with existing systems or equipment and the source is uniquely qualified to meet the requirement.

The ITAE Pop-Up floats are a developmental technology. Designs for the floats have run through three different generations since building first began in 2015. During this time we have considered and tested the use of three different styles of programmable burn wire releases: the Sub Sea Sonics TR-45 Timed Release, the DBV Technology enclosed cylindrical release (Model DBV-BWR-001A) and the DBV Technology release block (Model DBV-BW-RBA-002C). Of these three options the DBV Technology release block fit the requirements of the float best in the following manner: The release block is durable and able to withstand the load of the anchor and the float, and is able to be programmed to release up to 24 months from the program date. The style of the release is easily mountable and reduces potential for tangling an anchor during deployment at sea. The design of the prototype floats were finalized based on the dimensions and cable port bulkhead sizes of the DBV release block. This is the most pertinent reason for our single source procurement request. The current generation working design for the ITAE Pop-Up floats integrate the DBV release block style burn wire release. The frame, release block mounting plate, anchor/cable/shackle assembly and the machined bulkhead connector port are all designed to function with the use of the DBV release block (Model DBV-BW-RBA-002C). Furthermore, EcoFOCI already owns the programmer and programming application for the DBV release blocks, which were purchased in the summer of 2018 for programming prototype Pop-Up floats with DBV burn wire releases.

✔ Urgency – The nature of the requirement has been deemed urgent due to unusual and compelling circumstances. Following competitive procedures would result in unacceptable delays resulting in serious injury to the Government.

The modifications and improvements to the float design to perfectly integrate the burn wire release have been incremental over a period of 6 months. Any changes to the release style or type would result in approximately 6 more months of modifications to the floats and testing, as well as loss of time and materials already invested in the current working float design. The floats must be completed and ready to load onto a container in late-June of 2019 and aboard the R/V Ocean Starr and the NOAAS Oscar Dyson in mid-July of 2019. Once loaded, the Pop-Up floats' mission is to collect important bottom-temperature, profile and surface temperature, depth, light and photographs in an increased geospatial grid across the Bering Sea shelf and during time-periods of sea-ice advance and retreat from late fall to early spring in the Chukchi. The floats cannot function without the DBV block style burn wire releases.

5. Market Research.

Current market research includes:

Sub Sea Sonics www.subseasonics.com
TR-45 Timed Release $210
Notes: NOT CURRENTLY IN PRODUCTION, burn wire link unable to take anchor load without frame design modification.

DBV Technology www.dbvtechnology.com
DBV cylinder-style burn wire release $750
Notes: Cost prohibitive, long cylindrical release exposed hanging below float, potential for damage/entanglement during sea deployments.
DBV Technology www.dbvtechnology.com
DBV block-style burn wire release $585
Notes: Within budget, compact rectangular design small and easily mountable to frame, strong enough to take loads, programmable, meets all specification requirements.

Any commercially available burn-wire release would need to be fully tested before use in a field deployment. Due to time and budget constraints we chose to purchase and test these three burn wire release options listed above. We found that the DBV Technology block-style release is the best-suited for our mission and the most cost-effective. This decision was made after discussions with PMEL's Mooring lead Geoff Lebon, Machinist Tom Walton, Engineering lead Chris Meinig and Engineering mechanical engineer Steven Anderson.

6. Technical/Requirements Representative Certification

I certify that this requirement constitutes the Government's minimum needs and the supporting data provided herein is accurate and complete to the best of my knowledge and belief.

DONOHOE.SARAH.SOPHIA.1516633618 Digitally signed by DONOHOE.SARAH.SOPHIA.1516633618 Date: 2019.05.22 09:51:10 -07'00'

Sarah S. Donohoe *Date 05/20/2019*
Scientific Support Officer, LTJG/NOAA

7. Determination *(Required)*

I hereby determine that the circumstances of this action deem only one source is reasonably available. This determination is accurate and complete to the best of my knowledge and belief.

_____ _____
(Insert name) Contracting Officer Date