

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
LYNDON B. JOHNSON SPACE CENTER**

**RECOMMENDATION AND DETERMINATION TO SOLICIT FROM ONE SOURCE**

This document is being done in accordance with FAR 8.405-6 Limited Sources Justification.

This justification provides the rationale for contracting by other than full an open competition with the National Undersea Research Center (NURC) at the University of North Carolina (UNCW) for the use of the National Oceanic and Atmospheric Administration (NOAA) Aquarius Reef Base (ARB) and associated facilities and support services. This is in support of the June 2012 NASA Extreme Environments Missions Operations (NEEMO) mission 16.

1. Nature and/or description of the action being approved:

This is a limited sole-source award to the National Undersea Research Center (NURC) at the University of North Carolina (UNCW) to acquire their services for the use of the Aquarius Reef Base (ARB). This justification seeks to justify the limited sole source status of NURC/UNCW for these support services and the use of the ARB. The description of this task is to provide services required per the NEEMO 16 Statement of Work. The services include the use of the ARB which includes use of all NURC facilities and associated support services for mission preparation and real time support. Specifically, this includes the undersea habitat, training, operations, mission control support, boats, chambers, condominium, dive team support and use of the communication network.

2. A description of the supplies or services required to meet the agency's needs (including the estimated value and period of performance):

The services include the use of the ARB which includes use of all NURC facilities and associated support services for mission preparation and real time support. Specifically, this includes the undersea habitat, training, operations, mission control support, boats, chambers, condominium, dive team support and use of the communication network.

The cost of the utilization for the ARB will be \$155,000. This cost includes (12) days of mission operations and (3) days of mission preparation and testing. The period of performance will be from May 1, 2012 to June 30<sup>th</sup>, 2012.

3. Identification of the justification rationale (see FAR 8.405-6(b)) and, if applicable, a demonstration of the proposed contractor's unique qualifications to provide the required supply or service:

The Aquarius undersea research habitat is the only one of its kind in the world. There are no other facilities anywhere that can provide the very high level of mission simulation in an analog space environment.

Since, 2001, NASA has enjoyed a ten year partnership with NOAA/NURC and has built a unique infrastructure to support our NEEMO missions. These NEEMO missions are a unique model for how government agencies can work together for mutual benefit small projects.

Astronauts, engineers and scientists routinely state that the NEEMO analog at ARB is the closest thing to flying in space as can be found on earth for our requirements.

4. A determination by the ordering activity contracting officer that the order represents the best value consistent with FAR 8.404(d):

By placing an order against a schedule contract using the procedures in FAR 8.405, the ordering office has concluded that the order represents the best value (as defined in FAR 2.101) and results in the lowest overall cost alternative (considering price, special features, administration costs) to meet the Government's needs.

5. A description of the market research conducted among schedule holders and the results or a statement of the reason market research was not conducted:

A cursory market survey, consisting of a Google search for underwater test facilities, was conducted. While several underwater laboratories were built in the twentieth century, only three are currently operational – the ARB, Marine lab, and the La Chalupa Research facility. La Chalupa is currently operated as an underwater hotel; Marinelab, which is situated next to La Chalupa, is used to teach school children about marine ecology while staying underwater. The ARB is the only currently-operational underwater laboratory that is available for scientific purposes.

6. Any other facts supporting the justification:

The rate that NASA pays for the use of the ARB facility, which is owned by the National Oceanic and Atmospheric Administration, is consistent with their actual cost to run the facility.

7. A statement of the actions, if any, the agency may take to remove or overcome any barriers that preclude the agency from meeting the requirements of FAR 8.405-1 and FAR 8.405-2 before any subsequent acquisition for the supplies or services is made:

The ordering office will continually assess any new requirements and attempt to overcome any barriers that preclude the agency from meeting the requirements of FAR 8.405-2 before any subsequent acquisition for the aforementioned support services are made.

Pursuant to FAR 8.405, the ARB at NURC/UNCW is the only responsible source and no other supplies or services will satisfy the agency's requirements. Furthermore, it is likely that award to any other source would result in unacceptable delays in fulfilling the agency's requirements. Therefore, according to FAR 6.302-1 (a), "full and open competition need not be provided for."