

**NBL Operations Contract II (NOC II)**

**Industry Day Questions and Answers – Set 1**

March 29, 2023

The questions in this document are reproduced as they were asked during Industry Day One on One sessions or included as submitted electronically.

#	Question	Answer
1.	Does NASA have thoughts about how to maintain workforce through the uncertainties and potentially reduced tempo in support?	As indicated on the Industry Day charts, the Government sees workforce recruitment and retention as a key challenge. The Government does not plan to suggest a particular management or technical approach but does intend to request each offeror to propose its own technical and management approaches.
2.	Will other missions/events than Artemis be included in the workload data? Events per year data?	Yes, workload requirements and data will encompass all programs the NBL plans to support (e.g., ISS, Artemis Campaign programs, etc.). The Government anticipates releasing workload sizing requirements, listed on an annual basis, for the Core portion of the contract as part of the draft RFP.
3.	Are Artemis contractors going to be working in the facility (EHP, LTV, etc)?	The xEVAS contract requires xEVAS training hardware to be provided for events occurring in the NBL, and this support will involve those contractors performing some operations inside the facility. Specific plans for other programs/hardware have not been determined at this time.
4.	What other programs do you envision in addition to Artemis surface EVAs? Will Mars operations be included?	There are no current plans to support Martian EVA operations. Currently the NBL only has firm plans to support ISS and Artemis Campaign programs during the duration of this contract, but is exploring possible support of other programs and will update requirements as information becomes available.
5.	Will NASA release the NBL tour script?	Yes – it will be posted to the Technical Library.

6.	Can the script that was read by <NAME REDACTED> [the tour guide] on the tour be provided to all of the participants?	See Answer to Question 5.
7.	Have you determined the small business goals?	The Government does not yet have an approved Procurement Strategy for this acquisition. Any small business goals or set-asides will be defined in the draft RFP and may be refined in the final RFP.
8.	Have you thought about making the piece of the contract that is a potential OCI concern as a set aside to mitigate the issue?	The Government is doing a full assessment of potential OCI (Organizational Conflicts of Interest) concerns and potential resolutions. As indicated in the released Industry Day charts, the Government currently does not anticipate setting aside a portion of the contract to address OCI.
9.	Are all of the questions we ask here to be published?	Yes.
10.	Can we talk about proprietary information at this point?	No, the government is not accepting proprietary information during one-on-ones. However, the Government will accept proprietary information from interested parties submitted to the CO. However, the submission of such information does not obligate the Government to provide a response related to the submission. Information related to the proposal submission will be provided in the Request for Proposal (RFP). To ensure the confidentiality and protection of proprietary or confidential information, it is requested that all interested parties clearly and appropriately mark any documents submitted to the CO by placing a confidential or proprietary mark on each page that contains such information.
11.	How happy are you with your current service provider?	The Government does not release this incumbent performance data.
12.	Did you get enough RFI responses to determine the competition type?	The Government does not yet have an approved Procurement Strategy for this acquisition. Parameters of competition type will be defined in the draft RFP.

13.	When you look at past performance, what will you allow as past performance? ANC's have a different type/set of past performance. We are wanting to bid with an JV. How can we include our deep research capability in past performance?	Instructions for submitting past performance data and the evaluation plan will be released as part of the draft RFP.
14.	Can you release subcontract or subcontract spending?	The Government is not releasing subcontract or subcontract spending data as this is considered business sensitive information.
15.	Would you provide spending to date by subcontractor for NOC I?	See Answer to Question 14.
16.	What maintenance program, scheduling tool are you using. Do you expect future contracts to use the same software? Do you intend to direct which software?	DRD-NOCII-26 NBL Database Management Plan, contained in the released draft DRDs, contains a summary of databases used to support NBL functions. Currently the iMaint software tool is used for tracking required maintenance. The Government intends to make these software packages available for use on NOC II, but is also open to alternate options if offerors propose superior solutions.
17.	What are some of the data products produced on a regular basis?	The majority of tests and evaluations are conducted by other organizations or entities. The draft SOW, DRDs, and referenced documents in the Technical Library indicate required deliverable reports and data.
18.	Is there an existing maintenance plan?	Yes, NBL-MAINT-L0010 Neutral Buoyance Laboratory Maintenance Plan is available in the Technical Library.
19.	Is every asset tracked for maintenance?	Items identified during the ORR (Operations Readiness Review) process as requiring maintenance are tracked using iMaint. Some assets have not yet matured through to inclusion in iMaint.
20.	Is the NBL getting everything that they could be getting from the maintenance software?	iMaint has been successful, though process improvements are always welcome.
21.	How will <REDACTED>'s work to assist under-represented groups to become involved STEM be scored?	Proposal evaluation criteria will be released as part of the draft RFP.

22.	Does JSC/NBL/FOD hire civil servants from the contractor workforce?	Yes.
23.	How many civil servants are assigned to NBL?	Currently, 6 Civil Servants are resident at the NBL.
24.	Does the contract have significant personnel turnover? Is the turnover at NBL on par with JSC?	The Government is not releasing turnover numbers as this is considered business sensitive information.
25.	What's the turnover rate on the contract?	See Answer to Question 24.
26.	How often do you do non-destructive evaluation of concrete and piping?	Non-destructive evaluation of concrete and piping, if and when required, are generally performed by the Center Operations Directorate (COD) using other contracts. Therefore, this work is not part of the NOC II scope.
27.	What are the critical maintenance items--non-destructive evaluation of concrete and piping--is that coming due during this contract?	See Answer to Question 26.
28.	What are the typical major maintenance activities?	Major NOC maintenance includes all Critical Systems: Breathing Gas System, Water Treatment System, Clean Room, SCUBA tank/equipment. Typical maintenance requirements are documented in NBL-MAINT-L0010 Neutral Buoyance Laboratory Maintenance Plan, which is available in the Technical Library.
29.	Are there specific maintenance down periods?	Twice a year the NBL halts suited operations for two weeks each time for mockup maintenance. These periods typically occur mid-summer and early December.
30.	Are there any planned upgrades for the facility?	The next major system for planned upgrade due to equipment obsolescence is the BGS (Breathing Gas System).
31.	What major infrastructure or systems upgrades do you foresee coming up?	See Answer to Question 30.
32.	What are your planned upgrades?	See Answer to Question 30.
33.	Do you include your support contractors in design reviews for maintainability and manufacturability?	Support contractors are included in the engineering review process to ensure maintainability and manufacturability of designed hardware.

34.	Is there going to be a full list of assets that the contractor will be expected to maintain?	The Government anticipates releasing a list of On-Site Installation Accountable Property with the draft RFP.
35.	Would you release a complete list of Government assets available to be used by the contractor?	See Answer to Question 34.
36.	Is there a clear line of demarcation between COD and NBL contractor responsibilities?	Yes. Reference JSC-27049 MOU and Standard Interface Plan between COD and MOD for Support of MCC Operations and NSOC, and NBL-MAINT-L0010 Neutral Buoyance Laboratory Maintenance Plan in the Technical Library. Note that the name of the MOU document uses old terminology (MOD vs. FOD), but the indicated divisions of responsibility are valid.
37.	It appears the contractor is responsible for the SCUBA gear, etc., but the bottles go to a 3rd party for recertification?	Yes, the bottles are sent out for recertification.
38.	Will the performance measures for award fees be released?	A Fee Distribution Plan including Evaluation Factors will be released with the draft RFP. Appendix C: Performance Standards, is included in the released draft Statement of Work.
39.	What are the performance measures for award fee?	See Answer to Question 38.
40.	Will the contract be eligible to transfer to fixed fee?	The Government anticipates including a clause to enable transition to Fixed Fee and a clause to enable return to Award Fee. Note that the Government does not yet have an approved Procurement Strategy for this acquisition and what is anticipated may change.
41.	There were school kids at the NBL during the tour, what responsibility does the contractor have for tours?	The contractor does have responsibility to provide tours and briefs. Volume of tour support expectations will be included in Workload Sizing to be released in the draft RFP.
42.	Will you have any key personnel requirements for the contract?	Any key personnel requirements will be released in the draft RFP.
43.	Will there be requirements for named key personnel?	See Answer to Question 42.

44.	What are the key attributes you are looking for in the program manager?	See Answer to Question 42.
45.	What are the key attributes you are looking for in the contractor?	Evaluation criteria will be released as part of the draft RFP. Reference NOC II Priorities in the released Industry Day charts.
46.	Has the NBL ever been damaged during a natural disaster?	Yes. In Hurricane Harvey, the NBL received 4" water throughout the facility.
47.	Noticing that they are starting to put out PP scorecards to help you understand if you are competitive/relevant (facility clearance, experience,.. Will there be past performance score cards used for evaluations? Will there be a score for facility performance or other focal areas?	Requested data for past performance and means of evaluation will be documented in the draft RFP.
48.	Will the Government offer incentives for exceeding any of the SB goals?	A Fee Distribution Plan including Evaluation Factors will be released with the draft RFP.
49.	Who maintains/is responsible for the hypo/hyperbaric chamber facilities?	The chambers are maintained and operated by the Human Health and Performance Contract (HHPC). They are not the responsibility of the NOC II Contractor.
50.	How are the hypo/hyperbaric chamber facilities going to be offered to the commercial customers (military vs. civilian vs. commercial)? Can external customers utilize the chamber so that they can utilize nitrox?	The chambers' primary function is to support NASA runs. At this time, the Government does not offer the chambers for use by External Customers due to potential impacts to their ability to support NASA runs (including those on subsequent day). Any event requiring chamber support must be deconflicted from potential NASA run impacts and may require additional funding.
51.	Who controls access to the hyperbaric chamber.	The HHPC directorate owns the chambers and availability for NBL events is negotiated between NASA NBL Management and the Human Health and Performance Directorate. The primary function is to support NASA events.

52.	Can you tell us what the total FTE effort will be for this contract?	The Government anticipates releasing a Government Resources Estimate as part of the draft RFP. The Government expects Offerors to develop their own management and technical approaches, including their own proposed staffing approach.
53.	Is the FTE effort broken down by each entity within the org?	The Government anticipates releasing a Government Resources Estimate by WBS (Work Breakdown Structure) as part of the draft RFP.
54.	What is an anchor [external] customer? Will it exist for NOCII?	<p>The Government intends for NOC II to support any existing external customers that are approved to operate in the NBL. It is a contractual requirement that the outgoing NOC contractor and the incoming NOC II contractor facilitate transition of external customers (reference SOW 2.4, e and f).</p> <p>There is no official designation of an “anchor” external customer – though that term has been used to refer to customers who have continuing ongoing efforts at the NBL vs. those coordinating/funding one test/training period independently from the next.</p> <p>The expectation is that this terminology will continue to be used for NOC II.</p>
55.	What is the current expectation for excess capacity in the future?	As indicated in the Industry Day slides, the NBL is currently highly utilized with little excess capacity. The Government anticipates this may remain the case for much or all of the NOCII contract, but expects the NOCII contractor to be able to recruit external customers to utilize excess capacity should that unexpectedly become available.
56.	Would it be possible to lease pool assets ala-carte vice all inclusive?	The Government is open to negotiating reasonable variations on sets of assets to be utilized by External Customers. Early in the External Customer process everything was managed al a carte and

		packages were put together to enable easier price quoting.
57.	Are we planning to make changes in our acquisition strategy to encourage competition?	The Government is assessing ways to ensure a level playing field to achieve maximum competition.
58.	Are we anticipating keeping the 200 page section L instructions that were in the NOC RFP?	Potential offerors will be able to comment on the specifics of all aspects of the draft RFP once it is released.
59.	Is there a Collective Bargaining Agreement or union participation on the current contract? If there is will that (union agreement) be provided with the DRFP?	There is no Collective Bargaining Agreement or union on the current contract.
60.	Can you talk about asset management or maintenance performance? Just maintaining or also preventative?	NOC performs asset management and maintenance of User Equipment. Reference NBL-MAINT-L0010 Neutral Buoyance Laboratory Maintenance Plan for details on NBL maintenance approaches including preventative maintenance.
61.	Do you know if currently the provider is using predictive- or condition-based maintenance?	The Operational Readiness Review process identifies items that require routine maintenance and the iMaint system tracks scheduled maintenance. Some of that maintenance may include condition inspection. Unplanned maintenance is identified and performed via the DR (Discrepancy Report) process. The NBL utilizes time-based inspection and maintenance, but has generally not applied more advanced analytical tools to implement predictive maintenance, largely due to the unique nature of the systems.
62.	Does your service provider utilize predictive or condition based maintenance?	See Answer to Question 61.
63.	Are you seeing any attrition due to commercial space companies in this area? Are there any skills that translate between commercial space and those needed at the NBL?	Yes, some personnel have left for commercial space companies. As indicated on the Industry Day charts, the Government sees recruitment and retention of personnel as a key challenge on this contract. Many of the skills required for NOC II may also be required by commercial space companies, including but not limited to project management, fabrication, etc.

64.	Does the LMF have the capacity to provide what is needed to support NOCII?	The majority of mockup fabrication and maintenance is anticipated to be conducted by the LMF. The Government does occasionally source certain projects via other means.
65.	Cost Plus Fixed Fee from Cost Plus Award, is this still a plan/option, is there a time gate on it?	The Government anticipates including options to both transition from Cost Plus Award Fee to Fixed Fee and back at the Government's discretion. The Government does not anticipate a time gate. Note that the Government does not yet have an approved Procurement Strategy for this acquisition and what is anticipated may change.
66.	Are you expecting the contractor to provide bills of material for non-labor categories?	The Government does not anticipate requesting bills of materials, but all expectations for proposals will be released with the draft RFP.
67.	Is the DRFP in June still realistic?	As indicated in the Industry Day charts, NASA anticipates release of the draft RFP in June. Continue to monitor <a href="http://SAM.gov">SAM.gov</a> and <a href="#">Neutral Buoyancy Laboratory Operations Contract II (NOC II)   NASA</a> for any updates.
68.	When will the DRFP be released?	See Answer to Question 67.
69.	NxPLSS - is someone working on the self contained PLSS?	To clarify, the NxPLSS is different from the self-contained PLSS. The NxPLSS is umbilical supplied, is designed to interface with a variety of suits, and is almost complete.  The NBL is in the early stages of development of a self-contained PLSS through the NOC contract.
70.	External customers; Does the NOC do work within the external customer area or not? With NDAs are we going to have to segment our workforce? Affect staffing, BOE, etc?	The NOC II Contractor will be expected to provide External Customer support. Whether NOC II labor is provided and to what extent work is done within physical external customer areas varies from external customer to external customer. Similarly, the specific requirements for NDAs (Non-Disclosure Agreements), etc. and any associated impacts on staffing vary by external customer.

71.	Does the money for External customers go to NASA or through the contractor?	For commercial external customers, the NOC II contractor signs an agreement with the external customer and then passes cost savings to NASA via a Reimbursable Space Act Agreement. For additional details, reference DRD-NOCII-04 External Customer Plan in the posted draft DRD document and CX-POL0011 NBL External Customer Policy in the Technical Library. Governmental External Customers generally interface directly with NASA.
72.	How do you see funding streams changing in moving from ISS to Artemis?	The Government anticipates an increasing percentage of NBL funding coming from programs within the Artemis campaign. Workload Sizing requirements will be released with the draft RFP.
73.	Key Personnel: 7 were required for NOC, top 2 KP descriptions could be interpreted that if you didn't already work in the NBL you aren't qualified. How focused or open are you to personnel that don't already have direct NBL experience?	The Government recognizes the need to balance vetting for the right skill set and qualifications with the need to not create barriers to competition. Specific key personnel requirements will be released in the draft RFP.
74.	Is the acquisition strategy made?	The NOC II Procurement Strategy has not yet been approved.
75.	Do you anticipate any more RFIs coming out before the draft RFP?	The Government is not currently planning an additional RFI but will issue one if additional information is needed.
76.	What drove NASA to have 1 single award to run the NBL?	Prior to the current NOC contract, the NBL operations were grouped with another facility under the NSOC contract. The contracts were realigned as part of an overall facilities operation realignment.
77.	Have you seen some benefit from having the larger contracts broken into smaller ones?	The size of the contract or structure is less important than the ability of the contractor to be flexible and responsive to the Government needs.
78.	Are you open to breaking this one up into smaller contracts?	NOC II's Procurement Strategy has not yet been approved. As the Procurement Strategy is being formulated, the Government encourages Industry to provide inputs.

79.	How is the warehouse/laydown facility used to hold mockups? Are they just left out there or do they get moved around?	Mockups are strapped down and moved when needed or to accommodate other equipment. If there is no longer a need for a mockup, it will be excessed.
80.	Is there a significant materials purchasing component to the contract? And all of that goes through the current prime contract right?	Yes, materials procurement plays a meaningful role in execution of the contract to support facility, mockup, and external customer projects. The Government anticipates releasing a Government Resources Estimate with the draft RFP which will provide a level of insight. Material purchasing is managed through the NOCII contract.
81.	How many WYE in the LMF to scope? Throughput through the LMF to scope?	The Government will not be releasing incumbent staffing levels. The Government will release a Government Resources Estimate in conjunction with the draft RFP.
82.	How many FTEs today support the LMF? a. Breakout by area (Sewing, logistics, machining)? b. Breakout by labor category?	See Answer to Question 81.
83.	Can you please provide a list of all machinery and tooling in LMF?	This will be included in the stock equipment list which will be released with the draft RFP.
84.	Will the Government provide a complete list of all external NBL (inclusive of the pool, LMF, high-bays, and other NBL-related rooms/capabilities/etc.) customers and/or users to include current and historical external customers/users over the NOC period of performance?	The Government intends to make available a list of current and/or ongoing external customers, and a summary of SAAs (Space Act Agreements), and Annexes. The Government anticipates making this available by the time of draft RFP release.
85.	Do foreign nationals or foreign astronauts support or use NBL?	Yes
86.	Did you get RFI responses from at least two small businesses?	Yes, however the Government does not yet have an approved Procurement Strategy for this acquisition.
87.	What are normal hours of operations?	Normal operations are 7am – 5pm but start as early as 6am on the day of a suited event. Suited events run until 3pm. OCC (Operations Control Center) personnel leave the building at 5pm.
88.	How much overtime does staff accrue?	The Government will not be releasing this as it is considered contract-sensitive information.

89.	How will innovation be scored?	Proposal evaluation criteria will be released in the draft RFP.
90.	What will you consider relevant for past performance? Will you allow past performance from contractor-owned facilities, joint ventures, subsidiaries, and other entities who report to the same parent companies and have access to full corporate resources?	Evaluation criteria for past performance will be released as part of the draft RFP. The Government acknowledges the need to have appropriate means in place for assessing applicable past performance.
91.	What are your desired outcomes for NOC II? What would you like to have happened by the end of the contract?	The Government included NOC II Priorities, Challenges, and Opportunities for Innovation in the Industry Day charts.
92.	What type of STEM activities occur with NBL? Do you bring students to the NBL? Do you go to the classroom?	Currently the NBL hosts Micro-G NExT, which engages University students to design hardware that may be beneficial to NASA. In the past the NBL has supported Robotics competitions. Students come to the NBL; neither NASA nor NOC employees have traveled to classrooms as part of these activities.
93.	Has NBL benefited from IR&D or SBIR?	The NBL has not utilized IR&D (Internal Research and Development) or SBIR (Small Business Innovation Research grants) mechanisms in the recent past.
94.	What is the internal cost per hour to use NBL?	Costs to use the NBL are entirely dependent on the activity type(s). The NBL Office provides prices to internal organizations based on activity requirements. The Government does not publicly release internal costs.
95.	What is the cost per hour for external customers?	Costs to use the NBL are entirely dependent on the activity type(s). Cost estimates can be provided based on activity type and requirements by the External Customer office, based on a structured pricing process between the NOC Contractor and NASA. Reference CX-POL0011 External Customer Policy in the Technical Library for additional details.
96.	What's the annual operating cost for NBL?	The Government is not releasing cost data for the facility.
97.	What is the ratio of civil service to contractor personnel?	There are 6 Civil Servants currently resident at the NBL. The Government is not releasing current contractor staffing

		numbers as this is considered business sensitive information.
98.	How diverse is the workforce supporting NBL? Is diversity a point of emphasis?	The Government cannot share current contract diversity data. It is the goal of the Flight Operations Directorate to meet Agency/Center DEIA goals and objectives.
99.	What's the riskiest part of NBL operations?	A number of NBL operations are considered risky. See the Hazardous Operations chart in the released Industry Day charts for those operations the NBL considers most hazardous.
100.	What system is used for tracking assets/maintenance? Is it government owned or contractor owned?	As indicated in the draft DRD-NOCII-26 NBL Database Management Plan, iMaint is the primary tool. It is maintained by the NOC Contractor but is a commercial product.
101.	How do you track IDIQ projects? Will you release a list of IDIQ projects?	IDIQ projects are tracked via an annual Projects Technical Plan. The Government anticipates releasing historical summaries of IDIQ projects by the time of draft RFP release.
102.	What changes in operations will result from Gateway and Artemis missions?	Mockups and hardware representative of these missions will be fabricated and integrated into the facility. Lunar Surface operations require weighing subjects to lunar vs. micro gravity. Numerous associated changes (e.g. pool floor layout) will also occur.
103.	You asked how you could promote competition: How many RFP responses would you like to see?	The Government promotes fair and open competition and hopes to have multiple companies propose.
104.	Can you describe the nature of the excess capacity (ie. Specific equipment, 1 day slots, certain areas of the pool, etc) that NBL has historically had and what percentage of overall capacity has been historically left unused?	Types of excess capacity have included pool space, hardware cleaning capability, mockup fabrication capability, etc. Generally, any request requires an assessment of when capacity will be available. It is hard to provide a historical average, because most requested activities require multiple types of capacity (e.g., pool space, labor, specific facility configuration, etc.), so each must be evaluated in totality for if/when it can be accommodated.

105.	What are the internal systems and processes that NBL uses to book space and activities at the NBL? Do you use a CRM?	Specific processes vary based on whether it is an internal event, external customer, etc. The NBL employs schedulers who assess planned activities against available resources. One of the criteria upon which the NOC contractor is evaluated is their ability to adequately support external customers. The Government does not have insight into whether a Customer Relationship Management tool is utilized.
106.	Will there be any set-aside for a small business included in the solicitation?	The Government does not yet have an approved Procurement Strategy for this acquisition. Any small business goals or set-asides will be defined in the draft RFP and may be refined in the final RFP.
107.	Will there be multiple awardees for acquiring external customers or one? Multiple awardee situations will require close communication among the awardees thus requiring further channels of communication.	The Government anticipates a similar approach to that used on NOC, where-in the prime contractor coordinates commercial external customers. This is not anticipated to be multi-award.
108.	How will "market" rates for NBL be determined?	As indicated in draft DRD-NOCII-04 External Customer Plan and CX-POL0011 NBL External Customer Policy (available in the Technical Library), the NOC II prime contractor and NASA NBL Management work jointly to set rates.
109.	What restrictions will be placed on the variety of activities which can occur in the NBL?	Reference CX-POL0011 NBL External Customer Policy (available in the Technical Library) for a full listing of restrictions and the NASA approval process.
110.	Will there be a citizenship requirement for commercial users of the NBL?	The NBL cannot accommodate citizens of designated countries. Foreign Nationals can be approved via a more involved approval process; which can take longer than for US Citizens.
111.	Assuming commercial users will need to provide their own staff and equipment, will there be clear guidelines as to what is and is not allowed in the pool? Will there be on site storage available? Will medical oversight be available?	External Customer agreements allow for both use of external customer staff/equipment as well as utilizing NOC II contractor staff/equipment. All equipment brought into the facility must be approved prior to use in the facility. Reference CX-POL0011 NBL External

		<p>Customer Policy (available in the Technical Library) for a full listing of restrictions and the NASA approval process.</p> <p>On-site storage is one aspect of excess capacity which can be included in external customer agreements. Medical support group provides first responder capability when already present, support outside of these times must be funded in advance.</p>
112.	<p>Will NASA be providing some sort of NBL training and certification to ensure NASA's standards and expectations are met?</p>	<p>The Government institutes an approval process for all activities occurring in the NBL as outlined in CX-POL0011 External Customer Policy (available in the Technical Library). Part of the review process is to ensure all applicable standards are followed for the given activity type.</p>