

NASA Aeronautics Research Mission Directorate (ARMD) University Leadership Initiative (ULI) Solicitation Q&A Update 1, 5/3/16

- 1. We have recently been advised that several Federal customers do not wish to include Micro-Air vehicles in their research. Is Micro-Air vehicles and related attributes included within the scope of NASA ULI intent or is this an excluded area of research?**

Research into different sizes of aircraft is within scope of the ULI effort, consistent with addressing the strategic thrusts discussed in the Strategic Implementation Plan (<http://www.aeronautics.nasa.gov/strategic-plan.htm>).

- 2. Does NASA ULI program allows FFRDC competition?**

ARMD does not allow Federally-Funded Research and Development Centers (FFRDC) to participate as team members. For further information, see Section III(a) of the solicitation and Question #39 of Research Opportunities in Aeronautics (ROA) - 2016 Questions and Answers, <https://nspires.nasaprs.com/external/viewrepositorydocument/cmdocumentid=506672/solicitationId=%7B5F7EC42E-136B-FA21-515A-FFA32C228454%7D/viewSolicitationDocument=1/ROA-2016%20General%20Q&A.pdf> (Q&A available from NSPIRES, select "Solicitations", D.5 University Leadership Initiative, ROA-2016 Questions and Answers)

- 3. Can a non-US citizen, living in the US and working at a university, be included on the team? Or do all team members have to be US citizens/green card holders?**

Yes, although there may be export control considerations. Please see Question #10 of ROA-2016 Questions and Answers.

- 4. One of my collaborators is changing institutions this summer. With the NOI due 5 May and the Step-A proposal due 7 June, should we proceed using his current institution? Depending on the outcome of our Step-A proposal, if recommended to submit a Step-B proposal, that submission may occur after my colleague is at his new institution. (All his work for this proposal would be conducted from the new institution, of course.)**

Please list the institution that is current at the time the proposal is submitted. A different affiliation may be provided for Step-B, if needed.

- 5. We are building a team for the NASA ULI program. We have a company that is interested in joining. However, they are concerned that the cooperative agreement will not allow profit. Can a team member receive a subcontract from the leading institution with profit?**

As noted in the solicitation, NASA anticipates using cooperative agreements as the funding vehicle. Cooperative agreements do not restrict lead organizations from including a subcontractor on a for-profit basis. This is at the discretion of the vendor.

- 6. Are researchers allowed to be members of multiple teams with different lead institutions responding to the same ARMD strategic thrust?**

Yes, but they must be identified as team members in each proposal they participates in. (See ROA-2016 Questions and Answers #27).

7. Are researchers allowed to be members of multiple teams with different lead institutions responding to different ARMD strategic thrusts?

Yes – see Question #6 above.

8. Can the same institution be the lead institution for separate proposals responding to different ARMD strategic thrusts?

Yes, see Question #1 in ROA-2016 Questions and Answers.

9. If a principal researcher on a team changes institutions between the Step A and Step B proposal stages, are they allowed to remain as part of the team, or is it rigidly connected to the affiliated university?

Yes, a person who changes institutions between the Step A and Step B proposal stages may remain as part of the team. Any change in role must be updated in the proposal. See also Question #4 above.

10. Can a foreign company be used as vendor? We have a special product that only a foreign company can make it. If they have an office in US but the headquarters is in Europe, is that company still considered as a foreign entity?

This is not an easy question to address. It depends on the circumstances. The questioner should consult with an attorney regarding export control and other applicable statutes and regulations.

11. If our team plans to purchase time in an experimental facility at another university, does that university need to be included as part of the proposal team?

No, if the proposer only wishes to purchase time in an experimental facility at another institution and that institution does not collaborate on the research, it does not need to be included as part of the proposal team.

12. If we plan to make use of a paid consultant, is that permissible, or does that consultant need to be part of the proposal team?

A paid consultant is necessarily part of the proposal team. Consistent with Section 2.3.10 of the NASA Guidebook for Proposers, proposers must include a detailed cost breakdown and detailed sub-contract/sub-award budgets.

13. Do you encourage industry partnerships with the University as the lead?

Proposers are invited to include U.S. companies as part of their team, provided an accredited degree-granting U.S. college or university serves as the lead organization.

14. Please provide an indication as to the weighting that will be given to engineering educational efforts in the proposal evaluation?

The teaming element is weighted at 15% for Step-B proposals. For further information, please see Section D.5.3.5 in the solicitation.

15. And, what weighting will be given to outreach efforts such as K-12?

Please see Question #14.

16. Aside from the restrictions on NASA units participating, does the program have a preference for the entities on a team structure? EG, is there a preferred balance of university and industry team members, or are the teams free to select their own based on what we believe will yield the best research progress?

Proposers are free to organize their teams as they wish. Please see solicitation sections D.5.3.2, and D.5.3.5 for further discussion on teaming and selection criteria.

17. Will industrial partners be allowed to be funded through this mechanism?

Yes, at the discretion of the vendor, proposals may include sub-contracts for U.S. based companies. As noted earlier, the lead organization must be an accredited, degree-granting U.S. college or university.

18. Could we have some info regarding the evaluation process in the different stages?

Section D.5.3.5 in the solicitation summarizes the evaluation process and provides selection criteria. A two-stage process will be used (Step-A and Step-B).

19. Will the reviewers be specialists in a particular discipline?

Proposal reviewers have not yet been finalized. Reviewers are expected to include representatives from various programs and offices at NASA Headquarters and the research centers. Reviewers will be technically capable and competent.

20. Is "Assured Autonomy for Aviation Transformation" a valid focus for a proposal to the ULI solicitation?

Yes, this topic or any other listed in Section D.5.2 in the solicitation is a valid focus for proposals. Topics correspond to strategic thrusts within the ARMD Strategic Plan.

21. Do all partners on a proposal need to be on the NOI response? Or, can additional partners be added either during the step A or B proposals?

No, all partners do not need to be on a Notice of Intent (NOI) response. Yes, partners can be added or removed for Step-A and Step-B proposals.

22. Is an NOI mandatory?

No, an NOI is optional.

23. Will NOIs be shared with the proposing community or held within NASA?

NOIs will not be shared with the proposing community.

24. Can a proposal focus on a single thrust area?

Yes, proposals should focus on a single ARMD strategic thrust.

25. The solicitation mentions that the Step-A proposal should specify outcomes addressed. Are these outcomes same as the outcomes listed in the ARMD Strategic Implementation Plan?

Yes.

26. Can proposals address more than one outcome?

Yes, a proposal can support more than one outcome for the chosen strategic thrust.

27. Can a team of the same members propose multiple proposals to address more than one thrust?

Yes. Note, each proposal should address a single ARMD strategic thrust.

28. Does NASA have any preferred thrust areas?

No, there are no preferred thrust areas. Proposers may submit to any of the six strategic thrusts in the ARMD Strategic Implementation Plan.

29. The solicitation seems to be encouraging teams to include members who are not traditional participants in NASA research. Does that include, for example, junior faculty members at institutions that do have a strong history of NASA research but that particular individual is just getting started? Could it include a department at a university that has a lot of NASA history but the members of that department don't have history?

The solicitation is fairly broad in terms of teaming arrangements. Teaming in proposals will be evaluated according to the teaming evaluation criteria in Section D.5.3.5.

30. If the Notice of Intent (NOI) is optional, what is the purpose of submitting a NOI?

The NOI gives NASA an estimate of the number and type of proposals that may be submitted in response to the solicitation and permits NASA to plan its reviews accordingly. (See ROA-2016 Questions and Answers #9 and 7).

31. Is the Notice of Intent binding?

No.

32. Do you expect more applied research or fundamental research?

The solicitation is seeking system-level, multi-disciplinary research contributions. Either applied or fundamental research can be incorporated into the effort through the execution period. The work should progress to system-level and multi-disciplinary final research products.

33. The solicitation indicates that you can't have foreign investigators from government laboratories to be included as co-PIs. Can we have them as team members even though we are not asking for any funding support for them? Some of them could be very credible scientists that want to collaborate with us. Are we allowed to include them?

Foreign collaboration is not permitted for this solicitation.

34. Is it possible, like for NSF proposals, to get a letter of support from foreign investigators?

Foreign collaboration is not permitted for this solicitation. This solicitation does not require letters of support.

35. NASA is looking for universities to propose different technical challenges based on what proposers believe are important barriers to overcome, not based on compatibility with existing NASA technical challenges. Could you elaborate on this because this could potentially eliminate some great ideas?

With this initiative NASA is looking to bring in independent research thinking to NASA Aeronautics research and new ideas from the university community that go above and beyond what NASA is already working on. So that is why the solicitation is asking for the university community to come up with their own technical challenges. The solicitation provides a list of the current NASA technical challenges so that proposers can use it as a reference to know what NASA is already working on and to propose different technical challenges.

36. Some NASA technical challenges listed in the solicitation are really broad. For example, I saw a technical challenge named human integration system that is really broad and can cover thrusts 1 through 6. Can you comment on this?

While a given research product may be able to meet outcomes in more than one thrust, proposers may note compatibility with multiple thrusts but must explicitly connect their research products to specific outcomes in a single thrust. The evaluation criteria related to technical challenges is in section D.5.3.5 of the solicitation.

37. Are there any constraints on industry partners with respect to cost share, no fee etc.?

The solicitation requires industry partners to be U.S. based companies and NASA does not require a cost share in the proposals. See also Question #5.

38. Are there any preference for industry partners: small business, OEMs?

NASA does not have any preference for any particular industry partners.

39. If invited, can the team be adjusted after Step-A proposal in preparation for Step-B?

Yes.

40. Are relevance to ARMD objectives solely technical objectives in terms of strategic thrusts, or do they include other factors such as diversity, educational leadership, mentoring, etc.?

The relevance to ARMD objectives for Step-A and Step-B proposals are described in the evaluation criteria in Section D.5.3.5 of the solicitation.

41. Is there a preference between efforts addressing near-term, mid-term, and far-term technical challenges? And is a higher risk acceptable for long term goals?

No preferences among time frames. Yes, the solicitation is seeking high technical risk ideas.

42. The Proposer's Guidebook includes additional sections such as Data Management Plan, Bio Sketches, Letters of Commitment, etc. Are these required for Step-A?

These are not required for Step-A proposals. The requirements for Step-A proposals are in Section D.5.3.4.

43. Can a team member be added after Notice of Intent but before submitting Step-A?

Yes.

44. Is the proposed research supposed to be very fundamental in nature, or application and demonstrations (say in flight tests encouraged in the later parts of the program)?

Please see Question #32.

45. Where can we get a copy of the Applicant's Workshop presentation?

It is posted at <http://nari.arc.nasa.gov/uli>. Links to the presentation and video recording are also available from the ULI solicitation page on NSPIRES.

46. In the NRA, it says "Foreign collaboration is not permitted for this solicitation." Can we still purchase products from a European company and it does not violate export control? In other words, is the funding allowed to purchase some key products abroad?

Please see Question #10.

47. How much technical detail is needed in the Step-A proposal, or should it be more of a broad overview of the innovative idea?

It is up to the discretion of the proposer. The evaluation criteria for Step-A proposals is in Section D.5.3.5.

48. Since Historically Black Colleges and Universities (HBCU) are encouraged, will the proposal be evaluated as weak if we do not have a HBCU member?

Teaming in proposals will be evaluated according to the teaming evaluation criteria in Section D.5.3.5.

49. Are the research objectives requested in Step-A the same as those listed under Outcomes discussions in the Strategic Implementation Plan?

No. The research objectives to be described in Step-A proposals are the objectives of the proposed work.

50. How many technical challenges do you expect to be identified in each proposal?

It is up to the discretion of the proposer. The solicitation requires one or more technical challenges.

51. Can you clarify the purpose and content expected in the optional Notice of Intent?

Please see Question #30 and ROA-2016 Questions and Answers #7.

52. Although cost share is not required, would it be reviewed as encouraging?

Cost sharing is not required and is not a part of the evaluation criteria.

53. I noticed that technical challenges in the solicitation range from extremely broad to extremely specific. How general or specific should the technical challenges be?

It is up to the discretion of the proposer. Proposers should define their technical challenges based on the characteristics and necessary elements in Section D.5.3.1 of the solicitation. See also Question #36.

54. When NASA evaluates the Step-A proposals they get to see everyone's ideas. Will NASA provide any recommendation or feedback for those who are selected to go forward to Step-B to help strengthen their proposal or suggest teaming with another Step-A winner to go forward in to Step-B?

No, there will not be any feedback to those who are chosen in Step-A to go forward to Step-B.

55. Do you have any idea of how many Step-A proposals will be chosen for Step-B?

No.

56. Should the proposal explicitly state which one of the technical challenges or which of the thrust areas we are going to address? Some ideas can be useful in more than one thrust area and you indicated you only want one.

The solicitation requires each proposal with its one or more technical challenges to address just one strategic thrust. See also Question #36.

57. For Step-B, I noticed that the evaluation criteria is 15% for teaming which includes education. Does that mean I should budget about 15% of the total budget for education?

No, there is no connection between the evaluation criteria weight of 15% for teaming (see Section D.5.3.5) and any proposed budget for education. The proposed education budget is up to the discretion of the proposer.

58. Do you need a formal university approved budget for a Step-A proposal even though it will not be reviewed?

No. See also Question #73.

59. Can you please provide an estimate for the due date of Step-B proposals?

Step-B proposals are due 45 days after proposal requests are issued by NASA. It is dependent on when NASA completes the Step-A proposal reviews. At this point, prior to receipt of Step-A proposals and not knowing the number and quality of those proposals, NASA is estimating around mid to late August 2016 as the due date of Step-B proposals.

60. Can you give an example of what you mean by system-level?

A system can be defined at many different levels, ranging from an aircraft component up to the entire national airspace system. NASA will provide wide latitude in how a team defines a system. The following are some attributes that could characterize a system. A system generally performs an aviation function. It necessarily incorporates multiple disciplines. It interacts with its environment and with other adjoining systems. Solutions to problems described in the Strategic Implementation Plan are necessarily at a system-level.

61. Since ULI aims at the system-level, is a flight test expected? Flight tests can be very complicated and expensive. Would there be enough funding for flight tests?

The solicitation does not have any requirement for flight tests. See Question #60 for more information on system-level. It is up to the discretion of the proposer to demonstrate system-level solutions.

62. How does NASA select reviewers for ULI?

Reviewers are expected to include representatives from various programs and offices at NASA Headquarters and the research centers. Reviewers will be technically capable and competent.

63. Will all technical reviewers be from NASA?

Proposal reviewers have not yet been finalized. Reviewers could be entirely from NASA or may also come from other government agencies.

- 64. The teaming evaluation criteria includes “Effective inclusion of team members that may not be as well-established or may have less experience on ARMD research activities.” Does the team member refer to an institution or a faculty member who could be in an ARMD experienced institution?**

Please see Question #29.

- 65. Regarding purchasing products from foreign vendors, the answer to Question #10 is not clear. For example, if our institution says I can buy the product, can I buy the product or do I have to get permission from NASA? Will it hurt the proposal during the review?**

Please see Question #10.

- 66. Will institutes having current ARMD funding be able to lead in a different proposed idea? Does getting current ARMD funding preclude an institution from applying to the University Leadership Initiative?**

Principal Investigators (PIs) and institutions meeting the eligibility criteria of Section D.5.3.2 are free to apply for the University Leadership Initiative. ULI does not have any restrictions regarding currently ARMD funded PIs and institutions.

- 67. Considering that some schools do not have the infrastructure other schools have, will purchasing major equipment be allowed under ULI?**

Cost is one factor with a certain weighting among other proposal evaluation criteria listed in Section D.5.3.5.

- 68. What is a typical number of university partners that you expect? How many partners on a given proposal?**

The solicitation does not have any requirement for number of partners. It is up to the discretion of the proposer.

- 69. For teaming, do you anticipate balanced teams or some schools can have say five Principal Investigators and one school has only one Principal Investigator?**

The solicitation does not have any requirement for number of investigators from an institution. It is up to the discretion of the proposer.

- 70. Can FAA be a team member?**

No. See ROA-2016 Section III (a), where FAA and other government agencies are not allowed to participate as team members.

- 71. Can we use NASA facilities as a vendor?**

Yes. See Section D.5.3.7 and ROA-2016 Questions and Answers.

- 72. Does NSPIRES require certain entries/elements for the Step-A proposal that will not be evaluated by NASA?**

The required NSPIRES elements for a Step-A proposal are: Proposal Summary, Business Data, Budget, and answering four questions for the Program Specific Data. The responses to these form the proposal cover page. None of these elements will be evaluated by NASA in Step-A.

73. Since NSPIRES requires budget numbers for Step-A proposals and ULI does not, should we put place holder numbers there or should we provide an order of magnitude budget there?

While submitting a Step-A proposal, even though NSPIRES says a budget is required, you will only get a warning if you leave all budget as zeroes for all the years. You can ignore these warnings and continue with the Step-A proposal submission process without filling out the budget.

74. Besides the budget, there are other elements required by NSPIRES for Step-A. What should we do about data entry for these other NSPIRES required elements?

In order to submit the proposal in NSPIRES, the proposer needs to complete those elements even though NASA will not review those elements. NSPIRES will force the proposers to complete those elements, otherwise the Step-A proposal will not be accepted by NSPIRES.

75. In NSPIRES, are Step-A proposals to be submitted by the authorized university representative?

Yes.

76. Can the PI submit a NOI in NSPIRES?

Yes. Only the PI of the team need to submit the NOI.

77. Where can the ROA-2016 general questions and answers be found?

The link to the "ROA 2016 Questions and Answers" is available from the ROA-2016 solicitation page on NSPIRES.

<https://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={5F7EC42E-136B-FA21-515A-FFA32C228454}&path=open>

78. Which site will the slides be uploaded to?

See Question #45.

79. I have had trouble getting NSPIRES emails, any suggestions?

NSPIRES recommends always checking your spam folder. If your email is powered by Google all NSPIRES emails will go directly to the spam folder.

80. Can one faculty member join two ULI team if he/she is not the PI?

See Question #6.

81. Would a proposal be at a disadvantage if a junior faculty is the PI of a large multi-disciplinary team that includes senior faculty members?

The PI and team members in a proposal will be assessed per the "Teaming" evaluation criteria listed in Section D.5.3.5 of the solicitation. The solicitation does not have any requirements setting a floor for the seniority of the PI in a team.

82. Only the 5-page "Scientific/Technical/Management" section is required in Step A. Other typical sections required for an NSPIRES submission (Proposal Summary, Business Data,

Program Specific Data, Detailed Budget, Letters of Commitment) may be simply denoted as "Not Applicable", since they will not be reviewed. Is our understanding correct?

Yes, your understanding is correct. See also Question #73.

83. As for the 5-page "Scientific/Technical/Management" section, we understand that no budgetary information is necessary to be included in this section (e.g., the total budget that will be requested and the distribution of funds/costs among the different partner institutions)--is this correct?

Yes, that is correct.

84. Can you confirm that the maximum budget for a proposal must be 2M per year up to 5 years? Does this mean that a total of 10M can be requested? In one of the earlier workshops, I have heard that a total of 8-10M was available for the entire program. Was this figure per year or in total?

As noted in the solicitation (Section D.5.3.2), NASA anticipates investing in multiple awards with nominal budgets in the \$2M range per award per year. Awards will have a maximum duration of five years.

85. Does the 5 pages of the central science-technical-management section include references?

As noted in the solicitation (Section D.5.3.4), the Scientific/Technical/Management section may not exceed five (5) pages for Step-A. Per the NASA Guidebook for Proposers, references and citations are not considered part of the Scientific/Technical/Management section. Please note that only the elements listed in Section D.5.3.4 ("Step-A Proposal Format and Contents") need to be included.

86. Can you please confirm if we need to enter a budget in NSPIRES for Step A or is a budget not required?

A budget is not required and will not be reviewed for Step-A proposals. Please see Questions #72 and #83.

87. The proposal is limited to 5 pages in length. Does this page limit include citations or should they be counted separately?

Please see Question #85.

88. We were in the process of writing the step A proposal. I just wanted to confirm that a budget is not required? According to the solicitation, only the proposal file will be reviewed. However, the budget button in NSPIRES is active. Just wanted to make sure I don't send in an incomplete proposal.

Please see Questions #72, #83, and #86.

89. I have been invited by a university to participate in a joint proposal in response to the University Partnerships aspect of ROA-2016. My question is whether my affiliations would make me ineligible to participate in such a proposal. I am an adjunct professor at a university. I am also an employee of a U.S. government agency. If I participate in this joint proposal I would do so in my capacity as an adjunct professor. The funding requested would be to support a Ph.D. student as a research assistant (and who would be my advisee), or possibly to hire a postdoc. No funds would be requested directly to support me. My support (including summer salary) are always provided solely by my agency. The solicitation states, "Other government agencies, Federally Funded Research and Development Centers (FFRDCs), and

NASA Centers are not eligible to submit proposals under this NRA or participate as team members under proposals submitted by eligible entities." Does that make me ineligible to participate in the joint proposal?

The adjunct professor's employment with a government agency makes him or her ineligible to participate in a ULI proposal.