

IIP-16 Solicitation Frequently asked Questions

Question: Section 5 of that document, it says that the IIP-ICD type of proposal value will be approximately \$500K per year for up to 18 months (project value would be ~\$750K for 18 months). However, in Section 8, the summary table says the "expected program budget for the first year of new awards" for IPP-ICD is up to \$4M for 3-5 awards. Does this mean the approximately first year value for each IIP-ICD award will be about \$800K, and ~\$1.2M for up to 18 months.

Answer: The maximum value of each IIP-ICD award is \$500K per year. The actual number of awards will vary based on the budget.

Question: From reading the solicitation I see that it implies remote sensing, however, subelement IIP-ICD (2) demonstration of new instrument concepts and/or measurements" seems to open the door to all Earth observing sensors and systems including the ones that can be placed at various locations on Earth. Would you comment on whether or not sensors/systems to be installed on Earth are within scope of the call?

Answer: The main focus of both elements of program is remote sensing instruments.

Question: "when" on 7/11/2016 is the actual cut-off time (EST) for proposal submission to NSPIRES?

Answer: Per Section IV of ROSES-2016, subsection (c) Proposal Submission Due Dates and Deadlines, the proposal deadline is 11:59 p.m. Eastern Time.

Question: Could you please bring examples for the "instrument" and "measurement concept" please.

Answer: Example of instruments funded under previous IIP award cycles can be found on the ESTO homepage (<https://esto.nasa.gov/>). Access and search the technology Portfolio button (the Blue Button). Also, on the ESTO web page under "About /Solicitations" are links to previous solicitations and abstracts of previous awards.

Question: Is there any link to the previous years' awardees that you can refer them?

Answer: Previous awardees and abstract of their awards can be found on https://esto.nasa.gov/obs_technologies.html.

Question: Do we need to have a scientist as a science PI for this call?

Answer: A scientist is not required as PI of the task, however any proposal must describe and defend its relevance to NASA's Earth Science remote sensing measurement needs and requirements.

Question: Do we need to have the approval of a program scientists (e.g. Cryosphere

program manager) to apply for this call if our "instrument" is related to that program?

Answer: No program scientist approval is required.

Question: Can we propose both developing an instrument (perhaps for the first 18 months) and measurement concept (for the second 12 months) of the development?

Answer: The IIP-IDD and the IIP-ICD are two separate program sub elements and will be reviewed separately. The two program sub elements should not be mixed in a single proposal.

Question: Can we propose a novel ground-truth system for evaluation/calibration of remote sensing instruments?

Answer: Per Section 1.2 of the IIP-16 Solicitation, "Goals of the Instrument Incubator Program":

The goals of the IIP are to research, develop, and demonstrate new measurement technologies that:

- *Enable new or greatly enhance Earth observation measurements and*
- *Reduce the risk, cost, size, mass, and development time of Earth observing instruments.*

Rapid advances in Earth science instrument technology are enabling significantly smaller instruments that may be able to meet many science needs in the future when using modularized subsystem architecture ("plug and play"), and/or architectures that allow increased flexibility and adaptability to multiple measurement objectives. Also, rapid evolution of spacecraft bus technology toward smaller satellites, when combined with increased launch opportunities on a more diverse set of platforms and launch vehicles, opens the possibility for many new approaches to Earth science mission implementation.

As discussed in more detail in Section 2 below, this program element requests proposals for technology development activities aimed specifically at: (1) development and demonstration of new innovative Earth Science remote sensing instruments; and (2) demonstration of new instrument concepts and/or measurements.

Question: Can we propose a new type of satellite to improve the remote sensing's cost, capabilities, etc.?

Answer: Refer to answer above

Question: Members of my branch (laser and lidar branch from LaRC) participated in the LIDAR technology workshop held recently by ESTO and my question pertains to that document. Does my IIP proposal work have to tie or map to that document or am I free to propose a solution to an Earth Science problem outside of that reference?

Answer: Your IIP proposal is not required to tie or map to the ESTO community workshops document that is posted on <https://esto.nasa.gov/files/2016CommunityWorkshops.pdf>. You are free to propose a solution to any Earth Science Focus Area needs per Section 2 of the IIP-16 Solicitation.

Question: Is an airborne demonstration a requirement for an IIP instrument, and are there any advantages/disadvantages to flying/not flying as part of the IIP? Also is it acceptable to leverage other airborne programs to fly an IIP instrument?

Answer: Per Section 2.1, IIP-IDD covers the entire instrument development process that includes instrument design, breadboard, prototype, and engineering model construction. Demonstration can be laboratory based or airborne. Airborne demonstration can be advantageous over laboratory or not flying but it all depends upon your instrument and way to verify the purpose of your instrument.

It is always acceptable to IIP when leveraging other airborne programs to fly an IIP instrument.

Question: Should the "approximately \$1.5M per year" award value in Appendix A.42 for an IIP-IDD also be interpreted as a maximum?

Answer: Our goal is to award as many proposals as possible within available budget. Therefore, we prefer that each proposal propose budget of ~\$1.5M per year. However, proposers must provide extensive justification if higher award value is proposed.

Question: I would like to ask if it is a requirement to show the pathway to develop a space-borne sensor in the IIP program scope? Particularly if I would like to propose an airborne sensor that would aid the development and data validation of a future decadal survey satellite mission?

Answer: The technologies and measurement concepts developed under the IIP may extend up through field demonstration with a longer-term aim for infusion into future ESD research and flight programs. It is preferred that proposed instruments/systems have a path to space since NASA's primary focus is measurement from space for global coverage.