

# Overview of Discovery 2019 AO Process

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# Overview of AO Process

This is a two-step solicitation

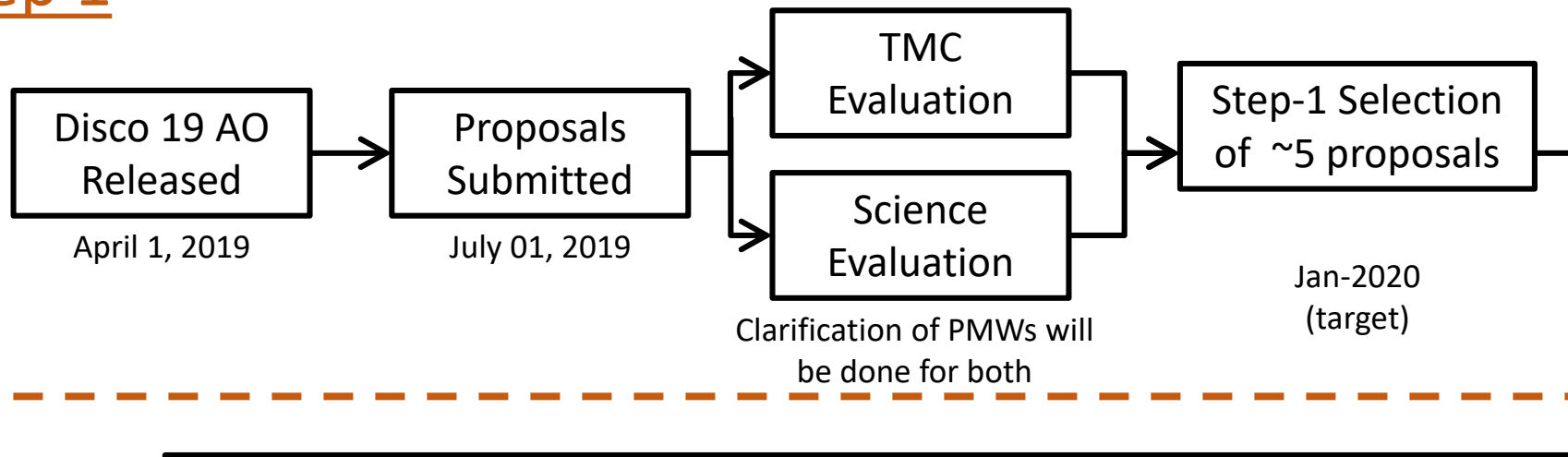
- Step 1 is the solicitation, submission, evaluation, and selection of proposals prepared in response to this AO. Outcome of the first step is the selection of approximately five Step-1 proposals to proceed to Step 2.
- Step 2 is the conduct of NASA-funded Phase A concept studies and the preparation, submission, evaluation, and continuation decision (downselection) of the Concept Study Reports.
- As the outcome of Step 2, NASA intends to continue up to two investigations into the subsequent phases of mission development for flight and operations.

NOIs are mandatory and due April 30, 2019 by 11:59 pm ET (~~EST~~) (Note: this correction was made on 04/29/2019).

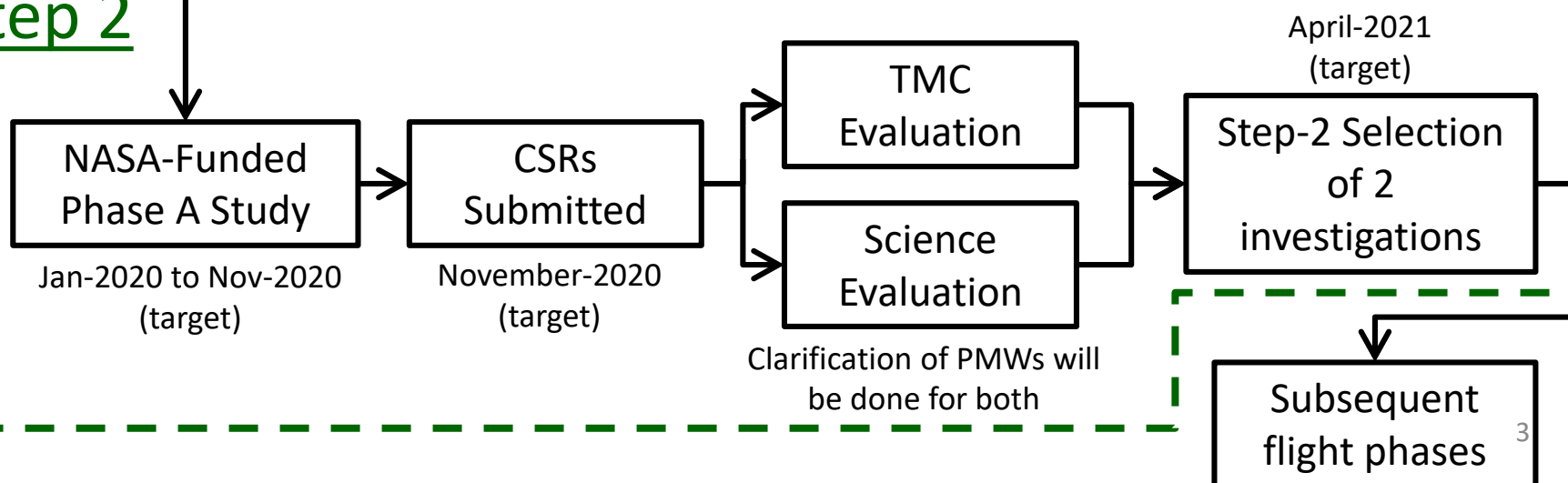
- You must submit an NOI by that deadline.
- If you make any changes to your proposal, especially to your proposal team, please send updates via email to Thomas Wagner at [thomas.wagner@nasa.gov](mailto:thomas.wagner@nasa.gov).

# Discovery 2019 AO Process Flowchart

## Step 1



## Step 2

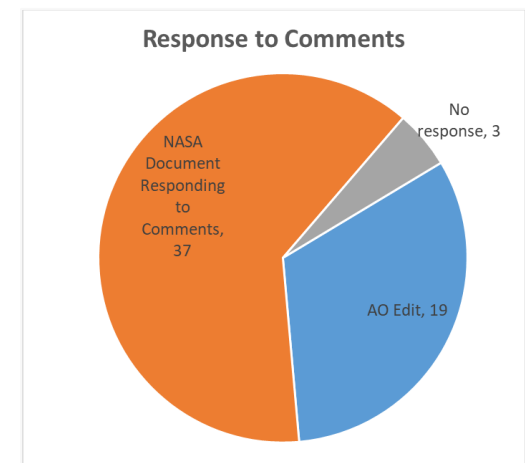
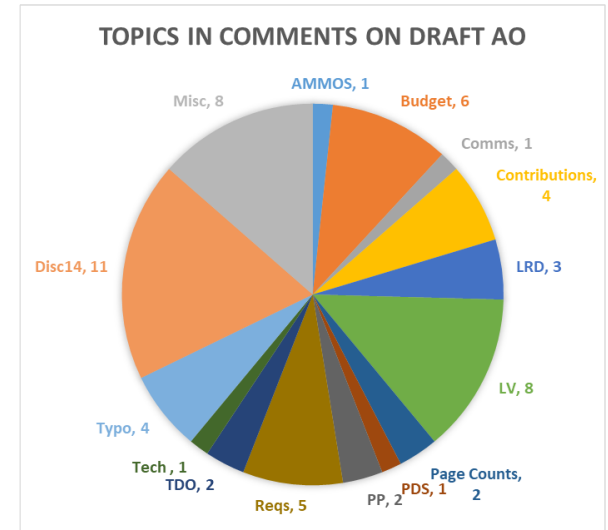


# AO Schedule

Release of final AO	April 1, 2019
Preproposal Conference	April 26, 2019
Notice of Intent Due	April 30, 2019
Electronic Proposals Due	July 1, 2019, 11:59 PM Eastern time
Proposals on CD-ROM Due	July 8, 2019, 4:30 PM Eastern time
Step-1 Selections Announced	January 20, 2020 (target)
Phase A Concept Study Reports Due	November 30, 2020 (target)
Down-Selections of Investigation for Flight	April 30, 2021 (target)
Launch Readiness Date (first)	July 1, 2025 – December 31, 2026
Launch Readiness Date (second)	July 1, 2028 – December 31, 2029

# Discovery 2019 Draft AO

- The draft AO was released on December 12, 2018.
- NASA received 59 comments on the draft.
- The comments resulted in 19 minor edits to the AO, none of which resulted in policy changes.
- NASA's response to each comment is posted at <https://discovery.larc.nasa.gov/discovery/index.html>.



# Key Points

- This AO has a Cost Cap of \$500M in FY2019 dollars for Phases A-D, not including the standard launch vehicle and launch services, Phases E-F costs, or any contributions.
- Foreign contributions to science instrument should not exceed 1/3 of the science payload.
- The down-selected missions must be ready for launch during at least one of two launch windows:
  - July 1, 2025 through December 31, 2026
  - July 1, 2028 through December 31, 2029

# Changes from the Draft AO

- Language was added to Section 1.1 regarding the career development opportunities to encourage proposers to train the next generation of mission leaders. Evaluation Factors B-5 and C-4 were modified to include assessment of plans to utilize this opportunity.
- Section 5.2.10 Space Systems Protection and Requirements 46, 47, and 48 were added.
- Definition and evaluation of Technology Demonstration Opportunities are deferred to Step 2.

# Changes from the Draft AO, con't

- Table 3, Cost deltas for launch service in \$M, was updated as shown below:

Draft AO

		2026 LRD	
		FAIRING SIZE	
		4 m	5 m
PERF.	Low	+\$10M to Adjusted Cost Cap	-\$11M to Adjusted Cost Cap
	Intermediate Low	+\$10M to Adjusted Cost Cap	-\$21M to Adjusted Cost Cap
	Intermediate High	No change to Cost Cap	-\$32M to Adjusted Cost Cap
	High	-\$20M to Adjusted Cost Cap	-\$62M to Adjusted Cost Cap

Final AO

		2026 LRD	
		FAIRING SIZE	
		4 m	5 m
PERF.	Low	+\$15M to Adjusted Cost Cap	+\$15M to Adjusted Cost Cap
	Medium	N/A	+\$10M to Adjusted Cost Cap
	High	N/A	No change to Cost Cap

Note: The same values should be used for the later LRD also.



# Changes from Previous AOs

- The use of radioactive sources is permitted in the form of small radiological sources for science instruments, RHUs, and/or the use of MMRTGs.
- Definition and evaluation of Student Collaborations and Science Enhancement Options are deferred to Step 2.
- A requirement was added to describe the traceability between the science objectives of the proposed investigations to the Decadal Survey.
- The policy to exclude Phase E and F costs from the AO Cost Cap has been clarified.
- Evaluation factors have been revised to combine Factor A-3 into Factor B-1 and to consolidate data adequacy and sufficiency and their attendant plans into Factor B-3.

# Changes from Standard AO

This AO is based on SMD's standard PI-led mission AO. Proposers should be aware of the following change in this AO:

- The CD-ROM versions of the proposals must include trajectory files (Requirement B-32) and Microsoft Project files of the project schedule (Requirement B-42).
- Proposals must include two funding profile tables for the PI-Managed Mission Cost. Table B3a must be in each fiscal year dollars and Table B3b must be in FY 2019 dollars (Requirement B-51).
- Proposers are required to use one parametric cost model as a benchmarking exercise and to report the input file and results in their submission (Requirement B-54).

# Questions?

