**Template for NASA Keck Proposals**

Header should include a short title and semester. Do NOT include your name since we are moving towards Dual Anonymous Reviews in the future.

*[this first page contains general information; please remove it before submitting your proposal]*

Please refer to the [General Information and Guidelines](http://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml) and [Application Procedure](http://nexsci.caltech.edu/missions/KeckSolicitation/procedures.shtml) for more details. Email us at keckcfp@ipac.caltech.edu with any questions.

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| **\*\* PROPOSAL PAGE LIMITS \*\*** |
| Science Plan |  |
|  Science Case | up to 2 pages |
|  Instrument Request | up to 1 page |
|  Figures and Tables | up to 1 page |
|  References and Status of Allocated Time on Large Telescopes | up to 1 page |
|  Progress Report for Ongoing or Recently Completed Keck Projects | up to 1 page |
| **Total for Science Plan** | **Up to 6 pages** |
| Target list | No limit |
| 2 Mission Support Letters, one from NASA HQ and one from the supported project | No limit; *applies only to proposals requesting Mission Support status* |
| Note that the NExScI and WMKO coversheets do not count against the 6-page limit. * The NExScI coversheet is generated upon and included in the proposal submission and includes fields for a title, PI and co-I names, abstract, NASA strategic relevance, and the Keck Observatory Archive data check. These do not need to be repeated in the proposal text.
* The WMKO cover sheet is generated through the [WMKO Observer Login Page](https://www2.keck.hawaii.edu/inst/PILogin/login.php). The WMKO proposal number should indicate the correct semester and start with an “N”, indicating NASA as the allocating institution. You must upload a PDF of this coversheet when you submit your proposal.
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* Shortening one section does not mean that you can increase the page limit of another.
* This template is intended to outline a typical NASA Keck proposal. Section heading titles can make the proposal easier to read but are not required. Multiple sections can be put onto the same page.
* Proposals should use 12-point font with 1-inch margins on all sides. Do not change the default font in this template since other fonts have different character spacing that can affect readability.
* Once your proposal is complete, you will submit a PDF of the final version on-line at: <https://catcopy.ipac.caltech.edu/nasakeck/proposal.php> and will receive a confirmation email with a PDF of the submitted version attached.

**1 Science Case (up to 2 pages)**

**Do not include an abstract, title, or list of team members since these are captured in the coversheet upon proposal submission**.

The two-page science case should address the following.

1. The proposal should be aimed at someone who is not a specialist in the particular area of astronomy under study.
2. Outline the scientific question(s) toward whose solution the observations are requested, and place these questions in the larger scientific context.
3. Address which of the four science areas (Exoplanet Exploration, Cosmic Origins, Physics of the Cosmos, Solar System) is addressed by your proposal.
4. Demonstrate how the proposed science fits into [NASA’s strategic use of Keck time](http://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml#Ia).
5. If you are requesting [Mission Support status](http://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml#IIb) provide a justification.

# 2 Instrument Request/Technical Justification (up to 1 page)

This section should contain details of your planned observations, descriptions of scheduling constraints, and data analysis plans including:

* Target selection and instrument justification
* The required spatial, spectral, and temporal range and resolution
* Scheduling flexibility/date specific observing
* Exposure time justification
* If requesting less than full nights, indicate which portion of the night is requested (in HST)
* Cadence/ToO justification, if needed
* Back-up and descope plans, if applicable

Information can be summarized in a table for clarity. Only specific scheduling constraints need to be included here.

# 3 Figures, Tables (up to 1 page)

Captions, tables and references may be in 10-point font. Figures and tables can be embedded within the narrative text or presented separately, but must not total more than one page of space.

# 4 References and Status of Allocated Time on Large Telescopes (up to 1 page)

# 5 Progress Report for Ongoing or Recently Completed Keck Projects (up to 1 page)

No more than one page should be used to summarize the PI’s and key Co-I’s current involvement on existing Keck research programs to allow the reviewers to understand the status of completed and planned observations, data analysis, and publications.

# 6 Target List (no page limit)

All proposals must include a complete, well-justified and, if appropriate, prioritized target list with sufficient information (magnitudes, coordinates) to determine scheduling within the semester, including which part of the night is requested if asking for less than full nights. *Proposals without such lists will be rejected.*

In the case of Targets of Opportunity or sources drawn from on-going surveys, a description of the potential targets must be provided in sufficient detail for the Telescope Allocation Committee (TAC) to make a thorough review.

# 7 Mission Support Letters (if applicable, no page limit)

If you are requesting Mission Support status for your program, you must include current letters of support from the NASA Headquarters Program Scientist and from the supported flight project. See criteria and further information on letters [here](http://nexsci.caltech.edu/missions/KeckSolicitation/gen-info.shtml#IIb).