



DATE: March 10, 2017
TO: Distribution
FROM: JPL Palomar Advisory Committee (JPAC)
SUBJECT: JPL/IPAC Palomar 200-inch Observing Time Proposals for 2017B, covering the period 01 August 2017 – 31 January 2018.

Proposals for 200-inch observing time in the 2nd semester of 2017 should be submitted to the JPL Palomar Advisory Committee (JPAC) by

5:00 PM PDT, Monday, April 10, 2017

The following proposal information is enclosed:

- ☐ Instructions for filling out the on-line cover sheet and submitting your Palomar proposal
- ☐ A short description of the JPAC process

All proposals for JPL Palomar time must be submitted via our proposal web site:

<https://jpac.ipac.caltech.edu/jpac/proposal.php>

To submit a proposal, you must fill in some basic information and attach your Caltech coversheet and your scientific justification, both in PDF format. You can find a link to the Caltech P200 coversheet here:

<http://www.astro.caltech.edu/observatories/coo/solicit/2017B/C200.html>

Time on the P-60 is not being awarded by the JPAC.

A list of instruments available for 2017B is included below. For instrument specifications, sensitivities, and observing cookbooks, please consult the documentation available on the Palomar observers web site: <http://www.astro.caltech.edu/palomar/observer/P200observers.html>

For information regarding the PALM-3000 adaptive optics instrument, please consult: http://www.oir.caltech.edu/twiki_oir/bin/view/Palomar/Palm3000/ProposerInfo

Applications for JPL 200-inch time will only be accepted from JPL/IPAC scientists as the principal investigator (PI). All PI's should submit one proposal for each 200-inch project. The PI is expected to be an experienced observer, with previous use of the requested instrument, or to be prepared to travel to Palomar to learn how to use the requested instrument prior to any assigned time. The PI is also expected to be present at the telescope for the full duration of any time allocated. Postdocs may apply as PI, but the proposal must be accompanied by a letter from the JPL advisor describing the qualifications of the postdoc as a Palomar PI. This letter can be sent via email to Mike Werner (mwww@ipac.caltech.edu), and it must arrive by the proposal deadline.

JPL Engineering time: A limited number of JPL engineering nights will be available to JPL scientists in the 2017B semester. No more than two nights will be awarded to any PI (or team). This time can be used to test new instruments or observing techniques on the Hale Telescope, but requires the agreement of the Observatory Director. If you wish to apply for this time, please contact Mike Werner (mwww@ipac.caltech.edu) at least one week prior to the proposal deadline. A full proposal for this time following the guidelines described here must also be submitted on or before the deadline. In this proposal, the PI must make it clear that the request is for JPL engineering time, discuss the science which this engineering time ultimately will enable, indicate what support might be required from the Palomar staff, and whether or not the engineering nights need to be scheduled contiguously with night(s) for which a science proposal is also submitted.

Large Projects: We encourage large-scale observing projects by individuals or teams that will use the facilities of the 200-inch telescope to attack problems that would be difficult to engage within the constraints of semi-annual allocations. Large Projects should require more than five nights of observing time per semester, or more than 10 nights of observing time per year. Accepted Large Projects will be allocated time for two semesters, with the possibility of renewal. A completed cover sheet and a comprehensive 1-page status report must be submitted during the open call for proposals for the second semester of an approved Large Project. Large Projects already allocated time in two semesters must be resubmitted, following updated proposal instructions, if additional time is sought. In all cases a clear indication of the duration of the project must be given. Proposers of Large Projects must follow the same application process as other proposers, with the exception that an additional page of scientific justification (a total of up to 3-pages, maximum) may be used for Large Project proposals. Large Project proposals will be evaluated by the JPAC simultaneously with standard proposals. There is no *a-priori* allocation of time to Large Projects.

Strategic Projects: Several teams have been awarded strategic project status starting in 2016B. Strategic project teams should submit a proposal including the COO Palomar Cover Sheet and time request, a one-to-two page status report of progress on their work to date highlighting continued justification for strategic status, and a copy of the original proposal under which they received strategic project status. Specify the number of nights you had previously been awarded, and request more only if there is compelling justification. Please use the phrase "A Strategic Observing Proposal for Palomar Observatory" as part of the proposal title, e.g. "Observations of TRAPPIST-1: A Strategic Observing....". The next opportunity to apply for strategic project status will be prior to the 2018A proposal call.

PROPOSAL INSTRUCTIONS

The Cover Sheet

All observers must fill out the Caltech on-line cover sheet. Fill out the form, save it in PDF format, and then upload this file, together with your science justification, via the JPL on-line proposal submission system web site. The target list should be part of your scientific justification.

Remote observing from Cahill is now available for DBSP, LFC, WASP, WIRC and TripleSpec and can be requested through the on-line portal:

<http://www.astro.caltech.edu/observatories/coo/rof/ROF.html>

However, Keck observers get first priority for these facilities.

When filling out the Caltech coversheet, please take care to:

- ☐ List the relative priority in case you submit more than one proposal.
- ☐ Enter the number of nights requested in the appropriate column. Indicate your preferred run or runs with a “**P**”, and acceptable runs with an “**A**”, regardless of type (light or dark). **There should only be one “P” per instrument, unless multiple observing windows are required.** For maximum flexibility in scheduling, it is important to know all the times you can observe.
- ☐ Fill in the instrument you wish to use. An up to date listing of all 200-inch instrumentation is included with this call. If you list “Own Equipment,” identify the instrument in the proposal abstract. The use of a private or semi-private instrument must be approved by the instrument owner before you submit your proposal.
- ☐ Use a single line in the table for each project unless you wish to use more than one instrument in the course of the project, in which case you should use a separate line for each instrument. **Palomar does not support “backup” instruments – i.e., a second instrument to have available in case there are technical issues with your primary instrument.** If you request more than one instrument, both must be included in the scientific justification, and both must appear (on separate lines) on the cover sheet. **Secondary instruments should be requested only if they are integral to the success of the program.**
- ☐ Check the box provided if scheduling constraints apply to the request. Give the specifics in the proposal abstract and in the body of the proposal.

Scientific Justification, Target List and Summary of Previous Allocations

The scientific justification should include:

- ☐ **A short description of the project (2 pages maximum, 3 pages maximum for Large Projects),** including your science goals, methodology, and the appropriateness of the Palomar 200-

inch telescope. If this is an ongoing project, describe what has been done. If the project will require time beyond the current semester, describe how much observing time will be needed to complete the work. Remember to **give the big picture** (e.g., the total scope of the project, what will be done at Palomar vs. what will be done with other facilities, who will do the work, etc.). Remember, not all members of the TAC will be experts in your field, so make sure you explain the significance of your research to a broader audience.

- A detailed **estimate of the time required** for the observations. No standard format can be specified for this, as it will vary from program to program. Obvious factors to take into account are the brightness of your objects, the signal-to-noise ratio required, instrumental characteristics, potential systematic errors and how you will deal with them, and assumptions about sky brightness (i.e., phase of the moon). Be as specific as you can.
- Up to **one page** of figures, tables, and references supplementary to the written discussion.
- **A list of objects to be observed**, including name, coordinates, and approximate magnitude (specify band). In case objects will be selected from large samples, it is not necessary to list all the objects; however, make sure that in the text discussion the sample and its size are well-defined, and the selection criteria and the number of objects to be observed are specified clearly.
- Any **scheduling constraints** that may apply, i.e., dates which you either *must* or *cannot* observe, and a brief explanation for each case. If you plan time-specific observations that must be made within a window of a couple of dates, notify the JPAC of the details by email (mww@ipac.caltech.edu) and include this information in the proposal.
- The **status** of 200-inch observing time allocated to you over the past two years, plus an updated list of publications from the past two years based solely or in part on Palomar observations.

Shared-Risk Observing

Shared Risk Observing is a transitional phase between the final engineering tests of a new instrument and its use for general observing. This scheduling plan has the twofold goals of (a) allowing researchers to use the instrument to acquire scientific data for their programs and (b) allowing the instrument builders to check its performance in an operational environment. Observers using an instrument on a *Shared Risk* basis do so with the understanding that the builders may be present during the run and may need to:

- interrupt the science observing to adjust or modify the instrument,
- perform on-sky test measurements,
- obtain copies of the observer's data to evaluate its performance.

Publication Acknowledgement

We request the following acknowledgement to appear in any publication based wholly, or in part, on observations obtained at the Hale Telescope: "Based on observations obtained at the Hale Telescope, Palomar Observatory as part of a continuing collaboration between the California Institute of Technology, NASA/JPL, Yale University, and the National Astronomical Observatories of China."

Appendix — The JPAC Process

- Proposals are evaluated based on scientific merit, previous productivity, and if appropriate, the importance of the work to JPL missions.
 - After discussion during the JPAC meeting, individual committee members assign a numerical grade to each proposal and recommend the number of nights to be allocated.
 - JPAC grades and recommendations are averaged.
 - Proposals are sorted in order of decreasing average grade.
 - Starting with the proposal having the highest grade and working down the list, the number of nights recommended by the JPAC is assigned to specific observing runs, first to those marked as *Preferred* (**P**), then if no time remains in any of the preferred runs, to those marked as *Acceptable* (**A**). If all the time in the preferred and acceptable runs has been allocated to proposals with higher grades, no time will be assigned. Thus it is conceivable that a proposal with a restrictive specification of preferred and acceptable runs will receive no time, while a lower rated proposal with a less restrictive specification of runs will receive time. In general, proposals with the fewest restrictions have the best chance of being awarded time.
 - The JPAC chair reviews the first-pass schedule and recommends adjustments if necessary.
-

Instruments available for use in 2017B:

Focus	Instrument	Code	Status	Information
Prime Focus	Large Format Camera	LFC	Public	Spec sheet
	Wide-Field IR Camera	WIRC	Public	Spec sheet
	CHIMERA	CHIMERA	Semi-private (Hallinan)	CHIMERA web page
	WaSP	WaSP	Public	TBD
Cassegrain Focus	Double Spectrograph	DBSP	Public	Spec sheet
	TripleSpec	TripleSpec	Public	Spec sheet
	Cosmic Web Imager	CWI	Semi-private (Martin)	Spec sheet
	AO+PHARO	P3K+PHARO	Public	Spec sheet
	AO+P1640	P3K+P1640	Private (Hillenbrand)	P1640 web page

Private and **Semi-Private** instruments may be requested only with the prior approval of the instrument builder (indicated in parentheses in the notes column). This approval must be included in the submitted proposal. These individuals can be contacted by email as follows:

Chris Martin: cmartin@srl.caltech.edu
 Gregg Hallinan: <mailto:gh@astro.caltech.edu>
 Lynne Hillenbrand: lah@astro.caltech.edu

For instrument specifications, sensitivities, and observing cookbooks, please consult Palomar observers web site: <http://www.astro.caltech.edu/palomar/observer/P200observers.html>