

# Palomar Observatory Remote Observing Guidelines

## V1.01

### RSW/CMH et al October 2019

1.0) Palomar Observatory supports remote observing (RO) for proficient observers; it is our judgment that inexperienced observers often struggle in the RO environment, and we all share a compelling interest in seeing telescope time used efficiently. RO guidelines require at least one RO participant in any RO run having experience controlling the requested instrument(s) for at least one night on-site or three nights remotely within the last five years. The Observatory reserves the right to decline RO requests based on its assessment of the experience and proficiency of the RO requestor, and its judgment in this matter is final. **At least one proficient observer must be present (physically or online) during a remote observing session.**

Palomar Support Astronomers will be available as usual for consultation during the hours they would normally be available if the observer were onsite (12:00PM – 10:00PM PST). Instrument and session setup will occur during the normal setup time.

2.0) All remote observing sessions must take place from approved remote sites. Each requested remote observing session must be approved by the observatory. The observatory reserves the right to limit the number of approved remote sites in order to manage network administration complexity, and its judgment in this matter is final.

### Shared Risk

3.0) Remote observing is offered on a shared-risk basis. Problems such as unexpected network outages or connection problems can result in lost observing time, and the RO observing team assumes all risk associated with observing time lost due to connectivity issues. Telescope Operators and/or Support Astronomers will not be able to operate instrumentation on your behalf if there are RO connection problems.

### Instruments Supported

4.0) The following instruments are supported for remote operations:

1. DBSP
2. TripleSpec
3. WaSP
4. WIRC
5. CHIMERA

6. Other instruments may be available for RO on a case-by-case basis and at the Observatory's sole discretion.

## Palomar Remote Observing Sites

5.0) Remote observing is supported from the following locations:

1. Caltech (Cahill) RO Facilities
2. Yale RO Facilities
3. NAOC Beijing P200 RO Facilities

Note that there are limited remote observing facilities in Cahill, and by Caltech Astronomy policy **Keck observers get priority**. This means that a previously approved Palomar remote session can be preempted in favor of a Keck RO session; this has occurred in the past, and Palomar RO requestors are always at risk of being preempted by Keck RO observers.

## How to Request Remote Observing

6.0) Remote observing requests must be submitted by the administrative PI or LO a minimum of four weeks in advance of the scheduled observing run to receive full consideration. Any non-TOO RO request submitted less than four weeks before the scheduled observing run will be considered a late request, and assessed on a case-by-case basis at lower priority. Non-TOO RO requests submitted less than three business days in advance are strongly discouraged. The Observatory reserves the right to refuse any RO request, and its judgement in all cases is final.

Observers shall request remote observing for their run using the request portal (<http://palremote-reserve.caltech.edu/>)

For RO user support, email [palomar-remote \[at\] astro.caltech.edu](mailto:palomar-remote@astro.caltech.edu).

## Cahill Remote Observing

7.0) The online schedules for the Cahill ROF (Remote Observing Facility) can be viewed at:

ROF1 - [118 Cahill](#)

ROF2 - [144 Cahill](#)

ROF3 - [127 Cahill](#)

Access to Cahill and the ROF is through Caltech card keys. Many users will already have card-key access to Cahill ROF; if you don't, guest card-key access can be arranged through email to [rof \[at\] astro.caltech.edu](mailto:rof[at]astro.caltech.edu).

Note: Non-Caltech users of Cahill ROF are **required** to submit a signed [Facilities Use Agreement](#) (FUA; [PDF](#)) *before* they can be granted access to card-keys and Cahill ROF. Signed FUAs can be scanned and submitted to [rof \[at\] astro.caltech.edu](mailto:rof[at]astro.caltech.edu), or faxed to Richard Walters ([rsw \[at\] astro.caltech.edu](mailto:rsw[at]astro.caltech.edu)) at 626/568-1517.

Filing a FUA is *particularly* relevant for NASA-Keck users; please see the [NExSci](#) instructions for [NASA-observer use of Cahill ROF](#).

**First-time RO users are particularly encouraged to review the [ROF Manual](#).** The ROF manual contains descriptions of operations procedures; recipes, and scripts for connecting to remote observatories; and contact lists for questions and support. The ROF manual is also available in hardcopy in the two ROF rooms. Cahill ROF user support can be requested at [rof \[at\] astro.caltech.edu](mailto:rof[at]astro.caltech.edu).

The Cahill ROF are on the first floor of the Cahill Center for Astronomy and Astrophysics on the Caltech campus. Cahill is located on the South perimeter of campus, at [1216](#) E California Blvd, adjacent to the Keith Spaulding Bldg and the Caltech athletic facilities. Cahill visitors can find a summary of relevant information on our [COO Cahill logistics page](#).

## Observing from Other Remote Sites

8.0) Occasionally we get requests to support new RO sites. The Observatory assesses such requests based on its experience integrating new RO sites, and the Observatory's judgment in such an assessment is final. We **require** such requests to be submitted not less than four weeks in advance of any observing run the site is to be included in.

Without exception all approved remote observing sites shall meet the following criteria:

1. A dedicated computer with a static IP address that can run a VNC client.
2. Preferably at least two monitors (three is recommended).
3. Ability to connect to Zoom meetings.
4. Each institution/site shall designate a single point of contact (POC) for network support.

If the IP address of the remote observing computer changes, the designated POC shall notify remote observing support at [palomar-remote \[at\] astro.caltech.edu](mailto:palomar-remote[at]astro.caltech.edu) **at least four weeks in advance**. For each new IP address added to Palomar's firewall, an old IP address shall be removed as designated by the POC.

If a partner institute wishes to change or add a new remote observing site, this request must first be approved by the COO deputy director (Andy Boden).

If you are planning to observe from a new remote site, it is highly recommended that you contact observing support to set up a time to test your connection several weeks in advance.