

A group of people are gathered around a long conference table in a meeting room. They are focused on setting up cameras on tripods. The room features a large wooden cabinet with a decorative golden dragon sculpture on top. The table is covered with a dark cloth and has several water bottles, glasses, and papers on it. The people are dressed in a mix of casual and business-casual attire.

Boot Camp for Occultation Observers – A Proposal

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IOTA Meeting July 17-18, 2021



What is this and why do it

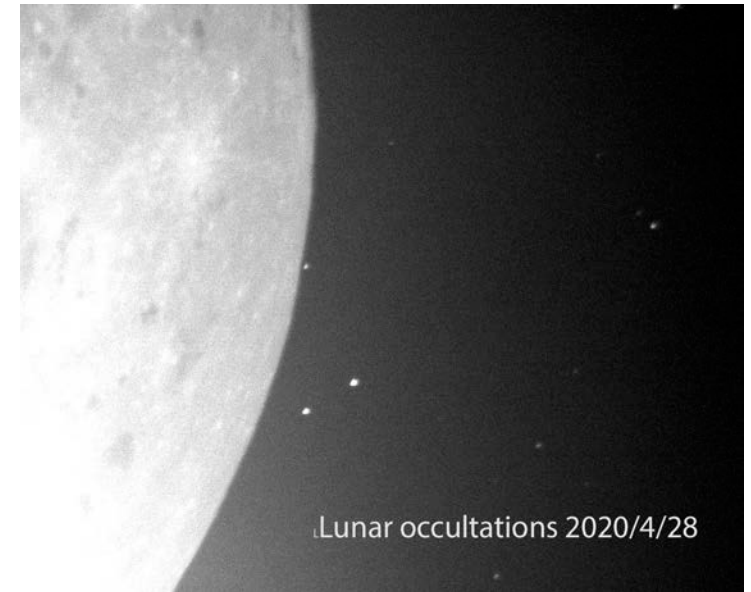
- A daytime session or two learning how to use supporting software
- An evening session learning how to observe with one's own equipment, preferably in a group session so observers can help each other
- An opportunity to improve observing skills
- A way to encourage the use of available prediction and reduction software
- A session to prepare for specific high-profile events

This is not expected to provide instant expertise, but it is to have observers gain some experience with observing occultations and the software that supports our observing.



Observing Session Schedule Suggestions

- During lunar passage through denser star fields, which give multiple opportunities for observing and recording events.
- Does not need to be associated with IOTA annual meetings
- Evening observing session in-between daytime sessions on prediction software and data analysis
- Times of lunar passages through the Milky Way
 - Northern Milky Way
 - Evening – April
 - Morning – August
 - Southern Milky Way
 - Evening – November
 - Morning – March





Where and Who

- Anywhere, anyone
- Observing sessions need a darker sky with near-by parking and access to power and maybe WiFi.
- Discussions of software use and software training requires individual access to personal computing equipment, WiFi or prior downloads of the necessary software.
- Software discussions could be done via online discussions, but that would be more challenging.
- A mixture of observing experience from none to quite experienced would be nice but not required



Equipment for Each Participant

- **Windows computer to operate the current software**
- **Telescope and equipment to record the data.**
 - **Best would be a field telescope, a camera, a way to annotate recorded data with GPS time stamps, and a small windows computer or tablet to record the data**
 - **A means of operating observing equipment without dependence on A/C power, WiFi, or cell phones.**
 - **Visual timing methods should be discouraged.**



Suggested Agendas

- **First session – before observing**
 - Preparation session(s) on installing and using Occult, Occultwatcher, Guide9 or C2A.
 - Discuss how to join iotaoccultations or planoccult groups.
 - Installing and using IOTA Video Capture or SharpCap or VirtualDub or limovie (observer's choice)
 - Hold in a group session or via Zoom or Skype
- **Second session – practice observing**
 - Set up scopes and equipment
 - Capture some occultation data
 - Learn prepointing or finding a target with Guide9/C2A.
 - Evening observing session probably preferred, together is better than online if possible.
- **Data reduction session**
 - Pymovie, Pyote, Occult, reducing data from observing session or use some from previously reported events
 - Requesting a report spreadsheet from OccultWatcher
 - How/where to report lunar occultations, grazes, asteroid occultations



Other Suggestions

- Start with small sessions of a few people and see how this goes
- Leader/teacher nice but not necessary for a successful session
- Organize as a club activity
- Do before an occultation campaign
- Please report to IOTA (via Secretary/Treasurer) on session experiences
 - Was it helpful?
 - What recommendations for future camps?
 - What would you like future organizers to know?



Resources

- All of the software can be found on line. Most of it is free or very low cost.
- Many of the programs have user guides, how to documents, YouTube tutorials.
- Software packages are available via the occultations.org website.
- Outreach Support Page, in development, will have links to software packages, user guides, tutorials

*Please note that this presentation is also my personal suggestions, not official pronouncements from IOTA.
And hurrah to anyone who arranges, supports, and participates in an Occultation Boot Camp!*