

# MVAS OTAA MEETING

## You are cordially invited to the MVAS-OTAA Meeting.

Location: At the MVCO on Saturday, August 14, 2010.

Be part of the festivities: join other area astronomers as they share shop-talk, food and renew and make new friendships. Maybe you will win one of the grand prizes! Your telescopes and binoculars are most welcome on Telescope Hill. AC electric lines will be available for your use, along the hill. With luck we will observe till dawn. Please consider sleeping (nap) in your vehicle before the drive home. MVAS people will be there all night. Sometime after 2 AM, we will likely start watching for any left-over Presides. The basic schedule (so far) follows:

- 5:00 PM **Registration:** opens at 5:00 PM as in past years. Registration fee is still \$5.00 for any person over 12 years old. Children 12 and younger may attend free. Any paid registration (adult or for children) enters one in door prize drawings. [Rita's Italian ice will be free while supplies last \(80 servings\).](#)
- 6:00 PM **Picnic Dinner:** begins. Bring a covered dish or dessert to share. Soft drinks and MVAS rocket fuel (coffee) will be provided.
- 7:00 PM **Program:** begins with OTAA announcements and news. The door prize raffle begins next. The main raffle prize winners are drawn next. This year three prizes are planned to be offered. A can will be provided for each raffle prize. This way one may purchase a few tickets and split them between prizes if you wish. Tickets will be \$1.00 each with no limits.

### RAFFLE PRIZES 2010:

One AstroTech 72mm ED refractor.

One set of three, Orion Edge-On Eyepieces

One copy of S&T DVD: 1941-2009 S&T Magazines

- 8:30 PM **Entertainment** this year will likely be viewing of a DVD of some sort. Sunset is around 8:30 PM and watching such a program is an option for those already set up. A nearly 4 day old moon will be up for those that would like to do lunar observing or photography until the sky darkens.
- 9:30 PM **The star party:** Please be considerate and use care with bright lights. Minimize use of laser pointers. The MVAS scopes will be available for attendees to look through. Something should be playing on the monitor inside the main building to watch during breaks and snacks.
- 12:00 AM **Midnight buffet:** Time to clear out the left overs. If enough interest is heard, hot dogs will hit the grill. Providing needed energy for the rest of the morning.
- 2:30 AM **Meteors?** Grab a chair and relax on the deck as you watch for any last stragglers of the Perseid Meteor shower. A good time to swap "war stories" about those glorious observing adventures you've had.

Again, be mindful of laser pointer use, bright lights and younger children that may need supervision. Park (lower level) facing east, away from the buildings. You may drive onto the Hill to unload big scopes before it gets dark (please ask). No vehicles are to remain parked on the Hill, in the the observing area. Thanks in advance. Hope to see you all there!

## REVIEW: OTAA prize- AstroTech 72mm ED Refractor

After lengthy research on the internet, it was decided to offer an AstroTech 72mm scope as an OTAA raffle prize. A nice grab and go size and the price was right (\$378) for an ED objective. A month after placing the order, the black the telescope arrived, having been on back order. It came in what seemed like a light walled cardboard box. Inside this was another box surrounded by Styrofoam peanuts. Inside this second box was a silver aluminum case, wrapped in bubble wrap. In the case was the telescope. No diagonal or eyepiece. Just a key for the case, instructions, silica gel packet and warranty card. I was disappointed the fitted insert was made of Styrofoam and not the usual soft foam rubber. Not a big issue since I don't see the case as being used that much, but others may use it. My concern is that Styrofoam may begin to crumble after many storage cycles. It was a very tight fit. The scope was also inside in a plastic bag with the silica pack. This shipping arrangement seemed satisfactory as there was no damage seen. The finish was a perfect glossy black. Unfortunately, two weeks before the OTAA event, some hair-line scratches appeared on the focuser body while attempting to fit the scope to a homemade EQ mount. This won't effect performance, but leads me to wonder about the durability of the "anodize" finish. As time permitted, several tests were made to see how this model performed in the field. Other than three tests, one visual test (~ 1 hour) and two photographic tests (~ 90 minutes total), it has been stored in its case. So it is new with cosmetic defects.

Overall specs: With the dew shield retracted and the focuser racked, in the overall length was about 12.25"; focuser tube cap to objective cap. Compact enough for a carry-on bag. With dew cap extended and focuser fully racked out, the length becomes 17.5". The main tube diameter is 3.38" and 6.25" long. The 180°, smoothly rotating focuser tailpiece is 3" long. A compression ring is used in the 2" focus tube. The Crayford focuser had a smooth action and the 11:1 micro knob was handy in photography focusing. I didn't care for the tubular focuser knobs that stick out: like in some other brands.....it's just asking for a bump. Disk shaped knobs look neater and makes it an easier/safer fit in an airline carry-on bag.

The dovetail mounting shoe is at the back edge of the main tube. Even reversing the shoe from "normal" position left the scope back-end heavy. The balance point was behind the foot, almost at the focus knobs. This condition held true regardless of accessory configuration; 2" diagonal or a 1-1/4" diagonal. With a 32mm Televue Plossl the focuser needed to be racked out nearly all the way. A heavy dslr camera was more out of balance. I had to slide the 2"-T-ring adaptor out about 1/3" to achieve focus. I had no trouble with in-travel distance of the focuser. The instructions say to use a photo tripod, but using the mounting foot (as it is implied) on a Vixen style mount may not work so well- from a balancing point of view. I could not safely mount it on an iOptron Cube and have it balanced. I was able to achieve balance using a Universal Astronomics Microstar mount with its sliding saddle plate. But the mount interfered with full rotation of the focuser. Never tried it on a photo tripod configuration. The balance would likely be off as well. A work-around will be needed, but the optics makes it worth the fuss!

With 72mm of ED glass, this doublet is fantastic. It is F/6 with a 430mm focal length. It is a very sharp lens with no color fringing. There was no color seen along the limb of a full moon, around Venus or Vega. Photographs of the Moon bear this out. No blue fringes, as they are seen in the photo taken with my

trusty 75mm F/6.7 University Optics refractor. The AT showed diffraction patterns identical either side of focus. Airy disk and rings were perfect at an astounding 224x (4.8mm Nagler with TV 2.5x Powermate). Saturn was sharp at 224x but dim for lack of aperture. Epsilon Lyra was easy and Icar had the companion on the first ring. Photos of a TV tower 10,700 ft away (2 mi.) easily showed the ladder rungs for the scramble to the top beacon light. The resolution (1.6 arcsec) should reveal detail 1 inch wide at that distance. I was able to detect 11th magnitude stars according to AAVSO charts. This lens should be a great telephoto for eclipses, RFT viewing, etc. It could be an excellent guide scope or main scope in CCD imaging. But being a high-end grab-n-go is likely its best use; keep it mounted on a tripod ready to take out on a whim. Despite the workable balancing issues, and a few scratches, the winner should be pleased. For the price of a few tickets, it's a keeper!

-P. Plante

## FOR SALE . . .

Two nicely made equatorial mounts made of wood. The German style mounts include counterweights, steel shafts with locks on both axels. They will be available at the OTAA for sale. See Dick Klesch, mount producer. He is asking \$275 for one of the mounts and \$250 for the other.

## MVAS Main raffle prizes.



(one) AstroTech 72mm ED. Black tube. 430mm FL, F/6.

Value: \$379.00



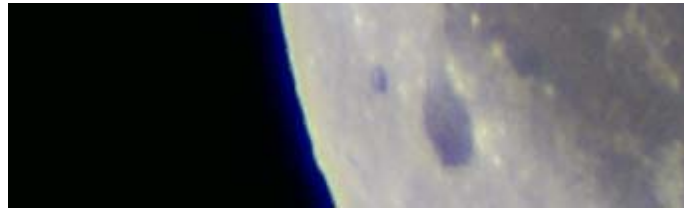
(one) Orion Edge-on Planetary eyepiece set. 5mm, 9mm and 14,5mm. Barrel size, 1- 1/4"

Value: \$279.00

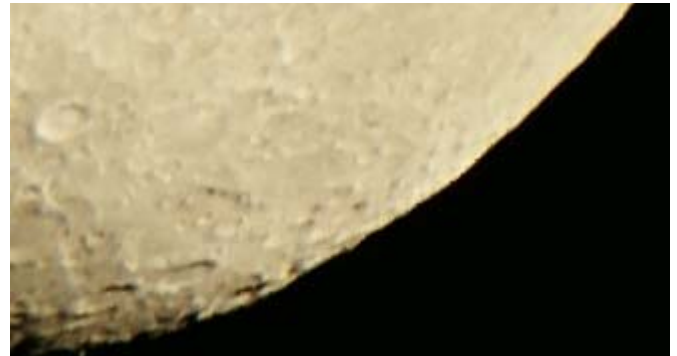


(one) The Complete Sky & Telescope: Seven Decade Collection on 8 DVDs.

Value: \$249 pre-publication. \$300 after August 6th



Lunar image made with a 1987 vintage University Optics 75mm "ED" refractor. It's 500mm FL at F/6.7. (photo taken 6/09). Note the blue fringe along the lunar limb. This scope has been reviewed as a step better than the Orion Short Tube that came out around the same time. My scope is a veteran of 5 total solar eclipses, one annular and a few lunar eclipses. It still serves me well but I wanted better "apo" optics for the 2012 eclipse. After study, I selected the AT72mm over similar OTA's mainly on price point. Also heard AtroTech offered good optics.



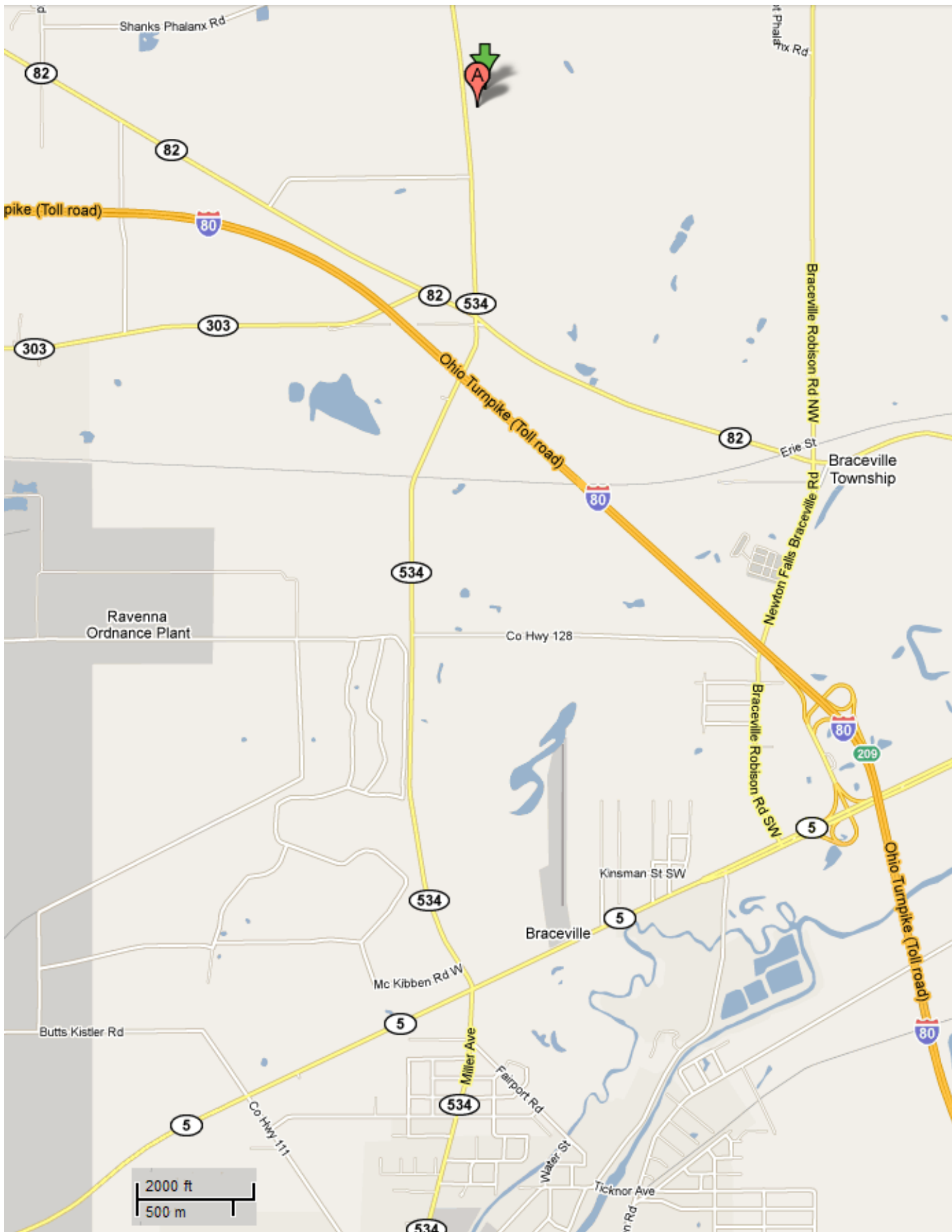
Moon with the AT72mm (test photo taken on 6/10). No chromatic aberration. I am very pleased with the sharpness and color correction with the AT. Both scopes are very sharp, but there is a slight edge with the AT72mm in sharpness and contrast. Might be due to new technologies and coatings not available in the 80's. I will likely use an AT72mm for the solar events in 2012. Amazingly the AT weighs-in at 5lbs which is nearly double the weight of the UO 75mm. Both images are above are cropped close-ups to help show any color.

Tower is 2 miles away (10,700 ft.)



Left is the full frame, right is a cropped close-up. Note the staggered ladder rungs on the red pole. Should be able to resolve 1 inch details at this distance. All four photos above (AT and UO) were made using a Kenko Pro 2x Teleconverter- a \$219 optic. (I was evaluating the AT for eclipse duty during this test.) Even with extra optics in the path, the AT provided a super sharp image. The Kenko telecoverter did not seem to add any color. The same Sony  $\alpha$ 100 dslr was used for all shots above.

**NOTE:** A homemade EQ mount was to be offered with this AT72mm but attempting to mount it in the mount's cradle scratched the focuser body. Apologies for this. It is a brand new scope used only for the tests. The warranty card is dated but otherwise blank and will be provided, but the scratches may not be covered. The scope was immaculate when received in late May, 2010. For the price of a few raffle tickets, the winner will be one lucky astronomer.



Shanks Phalanx Rd

Shanks Phalanx Rd

82

82

Ohio Turnpike (Toll road)

303

82

534

Ohio Turnpike (Toll road)

82

Braceville Robison Rd NW

Erie St

Braceville Township

Newton Falls Braceville Rd

Ravenna Ordnance Plant

Co Hwy 128

534

209

5

Braceville Robison Rd SW

Ohio Turnpike (Toll road)

Kinsman St SW

Braceville

534

Mc Kibben Rd W

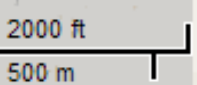
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Butts Kistler Rd

534

Miller Ave

Fairport Rd



534

80