

ANNUAL OPEN HOUSE 2011



HOPEWELL ASTRONOMICAL SOCIETY



HOPEWELL OBSERVATORY

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US



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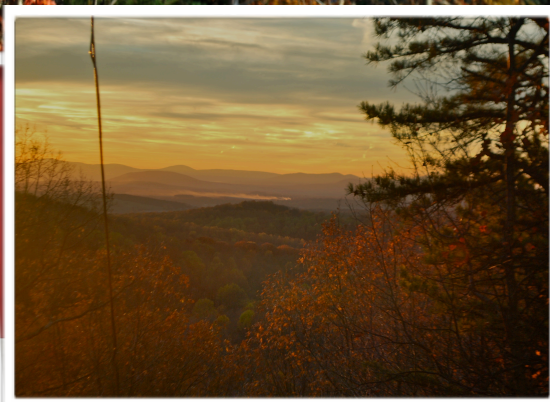
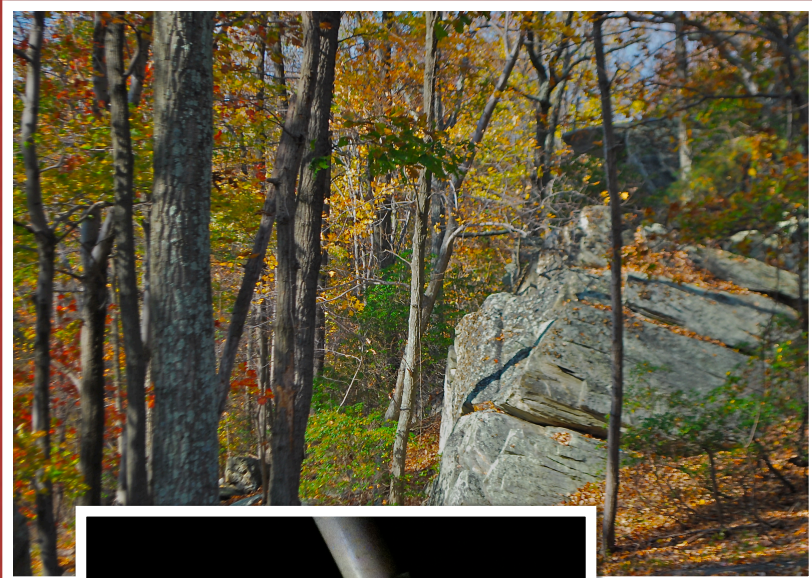


SATURN



STRAWBERRY MOON

JOIN US THIS FALL



HOPEWELL OBSERVATORY

OPEN HOUSE

SATURDAY

OCTOBER 29TH

2011

Location and Directions



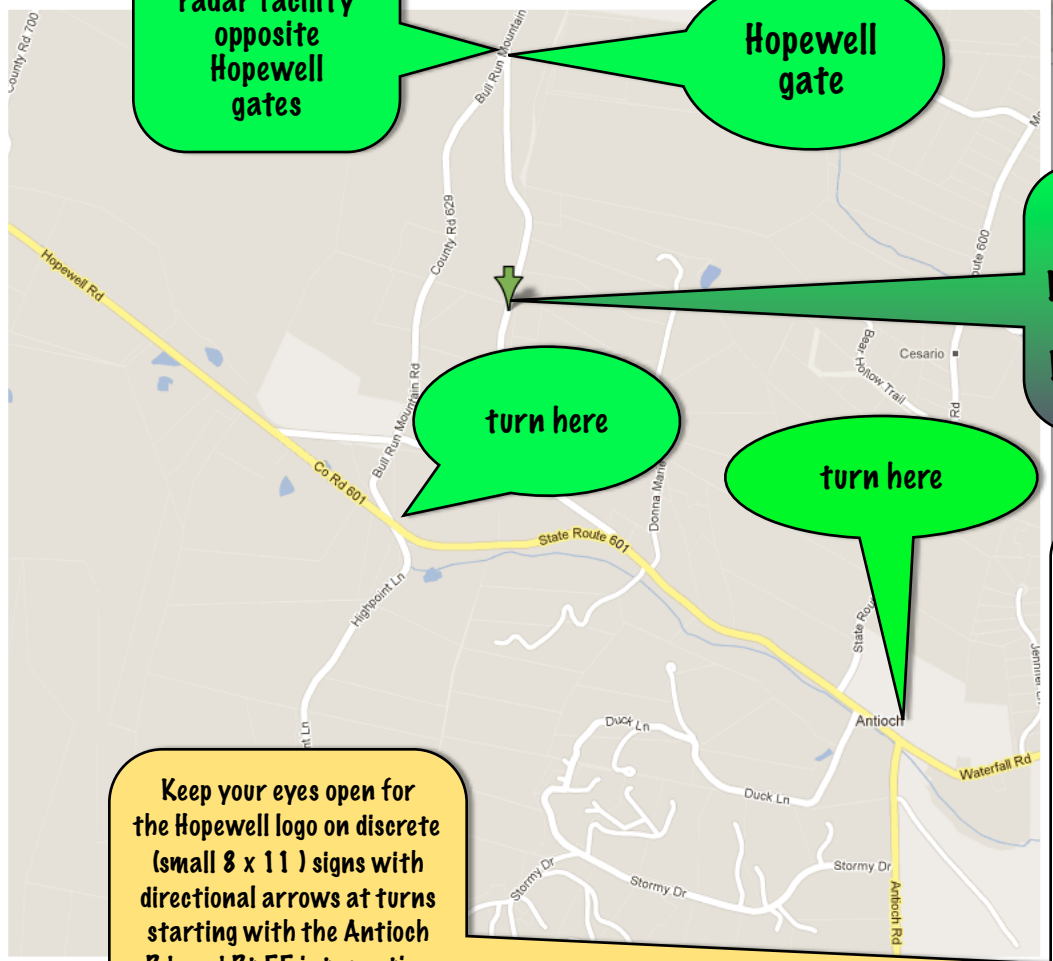
Hopewell Observatory

turn onto Antioch Rd. from Rt. 55

stone walled entrance to FAA radar facility opposite Hopewell gates

Hopewell gate

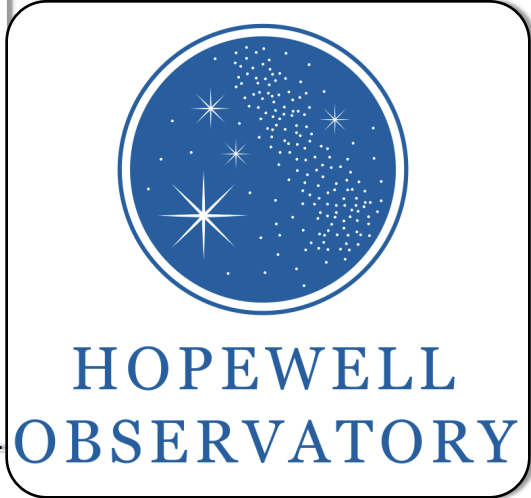
Hopewell Observatory
Latitude 38.8698
Longitude -77.6988



turn here

turn here

Keep your eyes open for the Hopewell logo on discrete (small 8 x 11) signs with directional arrows at turns starting with the Antioch Rd. and Rt 55 intersection



HOPEWELL OBSERVATORY

Come to the Annual Fall Open House at Hopewell Observatory on Saturday, October 29, 2011 (Cloudy or not!)

All members, friends, and relatives of the Northern Virginia Astronomy Club, the National Capital Astronomers, the Howard Astronomy League, the Greenbelt Astronomy Club, and any other local astronomy enthusiasts, are invited to come see the skies at a small, private, member-built and member-owned observatory in the foothills of Northern Virginia on the evening of Saturday, October 29th, 2011. If the skies are overcast or rainy, then the Open House will consist instead of a tour of our facilities.

The Hopewell Observatory is located on a small mountainous ridge called the "Bull Run Mountain", about 5 miles northwest of the intersection of I-66 and US-15 at the small town of Haymarket, VA. It is about 36 miles due west of the US Capitol building, and is probably located on the highest and darkest location anywhere that close to the Capital Beltway. It is surrounded by wooded areas, thanks to ownership of a lot of that land by the Jackson Hollow Recreation Area, the Bull Run Mountain Conservancy, and the federal government.

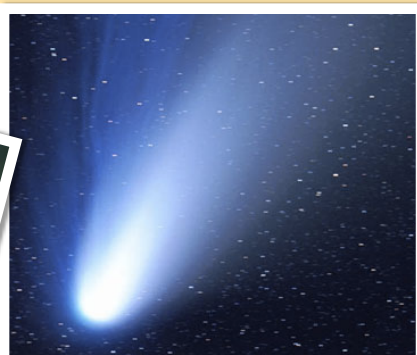
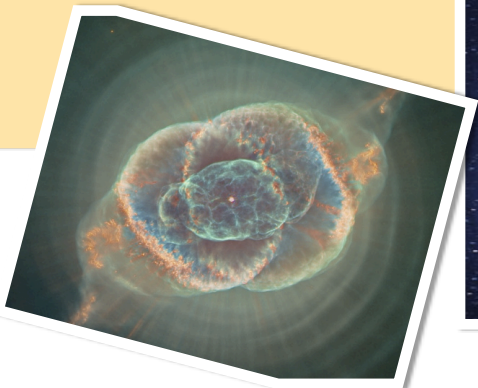
Our Telescopes

We currently have two telescope piers, in two separate observing rooms, under a roll-off roof, rather than a dome. One pier houses a massive, research-grade mount manufactured by Ealing, which guides a Celestron 14-inch Schmidt-Cassegrain telescope, a 6-inch f/15 refractor made by Jaegers, and a variety of guide scopes. The other pier houses an unusual 12-inch diameter Wright-Newtonian catadioptric telescope entirely made by one of our senior members, Bob Bolster – and that includes the optics.

Some of our members own (or have built) their own telescopes, and will have them set up in the cleared, grassy area around the observatory building. If you would like to bring your own, feel free to do so. We even have outdoor electrical outlets and a small level concrete area if you need them.

Research

Recently the C-14 has been used by one of our members (Paul Hueper) to detect and confirm (or not) the existence of some extra-solar planets. He does this by using a CCD camera mounted on the telescope and taking very careful measurements of the relative brightness of "candidate" stars compared to other local stars, for many hours at a stretch. If the "candidate" star dims, remains dim, and goes back to its normal brightness again at the theoretically predicted times, then one can confirm that the theoretically proposed (but as-yet unseen) extra-solar planet has probably passed between us on Earth and its star. This is not an easy task, however: the dimming is on the order of a hundredth of a magnitude, or sometimes less.



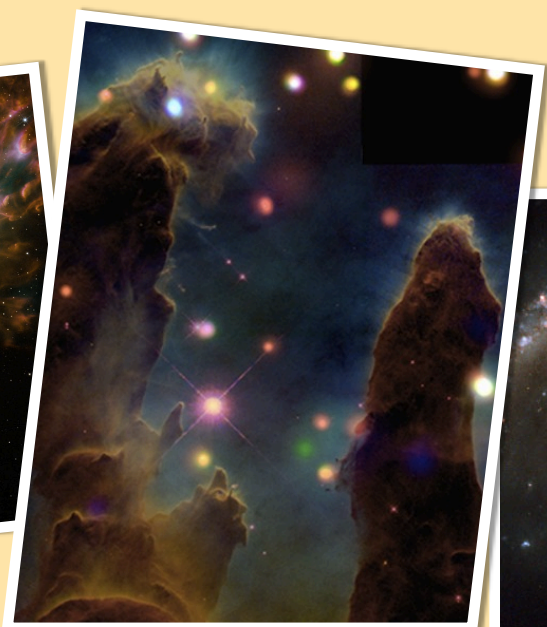
Conditions and Predictions

The weather will most likely be rather chilly, so dress warmly, using layers. The Observatory is in the woods, and is at a higher altitude (1,178 feet) than any other place inside the Beltway. We will have hot cocoa available in our 'operations' building. If you would like a detailed astronomical weather forecast for the location, do a Google search for "Hopewell Observatory Clear Sky Chart" or go directly to <http://www.cleardarksky.com/c/HpwIIObVAkey.html?1> or <http://tinyurl.com/HAS2009> .

Our Facilities

If you bring a flashlight, and it's not already a red one, then try to find some translucent red plastic to tape over the front of the white light. This will allow you to see your way around, but will also preserve the "visual purple" in your eyes and allow you to continue to see in the dark. If you don't have a red cover for your flashlight, we will have some red plastic and some masking tape in the operations building. Both buildings have red lights to help preserve your night vision. It only takes a moment's exposure to white light to make you night-blind, and it takes 10 to 20 minutes for it to come back. The steep-roofed building serves as an operations center and a place to get warm and to heat up hot water for tea, hot chocolate, and so on.

In the observatory itself, you will need to climb some stairs to look through the eyepieces. Sanitation is primitive. We have a simple composting toilet (with directions) in a red-lit outhouse behind the operations building, but we have no running water. We have some bottled drinking water and some non-potable water good enough for rinsing your hands. We also have paper towels, toilet paper, and hand sanitizers. We also have lots of bushes if you prefer roughing it. If you get lost, you can call the observatory directly at 703-754-2317.



Detailed Directions and Parking

Let's assume you are on Interstate-66 in Virginia, heading west, away from DC.

If you are heading east on I-66, the only difference is that you turn right (south) onto US route 15 almost immediately, rather than after 0.25 miles.

1. Consider car-pooling, as parking is very limited.
2. Exit at exit 40, Haymarket, go to end of ramp.
3. Turn left (south) at the end of the ramp (traffic light) and go about 0.2 miles on US route 15.
4. Turn right (at a light) onto US route 55, heading west.
5. Go about 0.8 miles to Antioch Road (VA 681; no light, no stop sign) and turn right (north).
6. Go about 3.2 miles on Antioch Road until it dead-ends on Waterfall Road (VA 601). Turn left (west).
7. Go about 1.0 of a mile; you will cross into Fauquier County, whereupon it changes its name to Hopewell Road. Do NOT turn on Mountain Road; wait until you see Bull Run Mountain Road (VA 629).
8. Make a diagonal right (north) onto Bull Run Mountain Road. This soon becomes a gravel road that gains elevation. Proceed about 0.9 miles until you see a large, well-made, locked stone-and-metal gate on the left and a much simpler, open metal gate (rusty orange) on the right, that consists of a single long bar, followed by another, similar, open gate.
9. Make a very sharp right turn right, uphill, through this gate. You will be heading south. This will be an unmarked and somewhat poorly-paved road, but your car should be able to handle it unless you have a very low suspension. If you are afraid of your undercarriage dragging on the road, then try to navigate so that your tires stay on the high spots and don't go down into the potholes. You will be gaining more elevation.
10. After about 0.3 miles the road ascends and turns left around a small but massive rocky cliff. You will see a concrete building attached to a radio tower, and a small parking lot. THIS IS NOT THE OBSERVATORY, but you can park in the lot here if the closer parking spots are all full, or if you don't want to drive on an unimproved dirt road.
11. Take a sharp RIGHT in front of the concrete building and follow a not-very-clearly-marked dirt road that goes about 1/3 of the way around the fences protecting the radio tower.
12. Then make a right onto a dirt road through some trees and brush. Park there, unless you have a handicapped driver or passenger. Do NOT drive down the power-line right-of-way.
13. Then walk about 300 meters/yards (~0.15 mi) further south. Please do not park in the space around the observatory itself unless you are bringing your own telescope to set up near the observatory.
14. The first building you will see is the Operations Building, which is a steep-roofed 2-story building made of concrete block and roofed with gray shingles. Feel free to 'check in' there and get some red tape for your flashlight, if needed, and some self-serve hot cocoa or tea if you like.
15. The observatory itself is about 40 meters (or yards) to the south of the Operations Building.



Clear Skies!