

HotScience DESTINATIONS

The National Radio Astronomy Observatory

Green Bank, West Virginia

38d-25'-48.2"N 79d-49'-03.93"W
nrao.edu/index.php/learn/gbwc

WHAT A DISH: The Robert C. Byrd Green Bank Telescope (GBT) is the crown jewel of the observatory complex. The world's largest fully steerable single-dish antenna, the GBT can access 85 percent of the celestial sphere and, at 485 feet, is taller than the Statue of Liberty. Despite its size, the GBT can be aimed with remarkable precision. Facility tours include a stop at the GBT.

NO-DOME ZONE: Although the word "telescope" may conjure images of domed observatories, the GBT and its neighbors are radio telescopes that resemble satellite dishes. The scopes collect data on cosmic objects that aren't visible to the eye but have properties, such as movement and temperature, that transmit radio waves. Black holes, for example, don't emit light, but the GBT and other radio telescopes can detect their high-speed swirling.

HUNTING E.T.: The oldest of the eight scopes on site is the Howard Tatel Telescope, erected at Green Bank in 1958. The Tatel was the birthplace of SETI – the search for extraterrestrial intelligence – when astronomer Frank Drake used it to hunt for possible alien communications.

TOUR IT: From Memorial Day weekend until Labor Day, the NRAO Science Center is open daily 8:30 a.m.-7 p.m. and runs hourly tours. Outside the summer season, the center's opening times and tour schedule vary. Tours are \$6 for adults, \$3.50 for children 7-12 and free for children 6 and younger.

DE-TECH: The area around Green Bank is full of outdoor opportunities, including hiking through the Monongahela National Forest and visiting Cranberry Glades Botanical Area, an ecosystem more typical of Arctic tundra (fs.usda.gov). The Cass Scenic Railroad (cassrailroad.com), a popular summer outing, is less than 10 miles from the NRAO. In winter, strap on your skis at the Snowshoe Mountain resort (snowshoemtn.com), just 30 minutes west of the facility, for downhill fun.

GOOD TO KNOW: Only simple film cameras are allowed at the NRAO. Digital cameras and 35 mm film cameras with advanced electronics are prohibited to prevent disruption of the scopes' supersensitive data collection.

GO: Unless you're a serious cyclist, the best way to visit Green Bank is with a car. The nearest major airport is in Charlottesville, Va., a university town with a Revolutionary-era historic district, about three hours' drive east of Green Bank.

GO DEEPER: Throughout the year, the center runs a number of special events, including a monthly behind-the-scenes tour hosted by an engineer, overnight field trips and a two-week summer science camp for high school students.

