

# Dedicated SETI Optical Telescope Starts Work

**The Planetary Society dedicated its new optical telescope Tuesday in a new dedicated effort to search for light signals from alien civilizations. Its 72-inch primary mirror is the largest of any optical telescope in the United States east of the Mississippi River.**

The telescope will conduct a year-round, all-sky survey, scanning the entire swath of the Milky Way that is visible in the northern hemisphere.

"This new search apparatus performs one trillion measurements per second and expands by 100,000-fold the sky coverage of our previous optical search," said Paul Horowitz of Harvard University, the facility's director.

The telescope was built at the Harvard Smithsonian Center for Astrophysics Oak Ridge Observatory, where for many years, The Planetary Society conducted radiotelescope SETI searches with Horowitz. The first was the Mega-channel Extraterrestrial Assay search, or META, which later was expanded to the Billion-channel Extraterrestrial Assay, or BETA.

Scientists specializing in alien civilizations think they might be at least as likely to use visible light signals for communicating as they would be to use radio transmissions. Visible light can form tight and incredibly intense beams, and its high frequencies allow it to carry enormous amounts of information.

Using only extant technology, an Earth-based laser to send a tightly focused light beam that for a brief instant could be 10,000 times brighter than the Sun. Such a beam could be easily observed from enormous distances with the right instrument.

"The opening of this telescope represents one of those rare moments in a field of scientific endeavor when a great leap forward is enabled," said Bruce Betts, the society's director of projects. "Sending laser signals across the cosmos would be a very logical way for E.T. to reach out, but until now, we have been ill equipped to receive any such signal."

The telescope's custom image processors will handle the equivalent of all books in print every second. As the telescope scans stripes of sky, it employs a custom-built camera containing an array of detectors that can detect a billionth-of-a-second flash of light. The telescope will scan the sky every night, weather permitting.

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