

No signals from newest Kepler planet

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Credit: Harvard-Smithsonian Astrophysical Observatory

A newly discovered planet has been observed with the Allen Telescope Array in a search for radio signals that would betray technically sophisticated inhabitants, but no transmissions have been detected.

The planet is known as Kepler 116454b, and orbits an orange dwarf star in the constellation Pisces. It is 180 light-years away.



Jon Richards, of the SETI Institute's Center for SETI Research, used the Allen Telescope Array to look for signals over the <u>frequency range</u> of 1000 - 2250 MHz.

In May, 2013 the Kepler space telescope suffered a mechanical failure that ended its ability to accurately aim at the sky. But the telescope has resumed its search for planets in a new mode, using the pressure of sunlight to help it steady its gaze on the sky. Kepler 116454b is the first planet to be found by the reincarnated telescope, and its discovery was announced just before Christmas.

The planet orbits its home star in 9 days in an orbit three times smaller than Mercury's orbit around the Sun. Consequently, temperatures on this world – which is a so-called "super Earth" and larger than Earth but smaller than Neptune – are expected to be too hot for life as we know it.

Nonetheless, and as centuries of experience have shown, observation sometimes trumps expectation, and that is why new exoplanets – whether they seem promising for life or not – are routinely observed by the SETI Institute with the Allen Telescope Array.

The observations of Kepler 116454b will continue at higher frequencies, Richards notes.

More information: www.seti.org/ata

Provided by SETI Institute

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