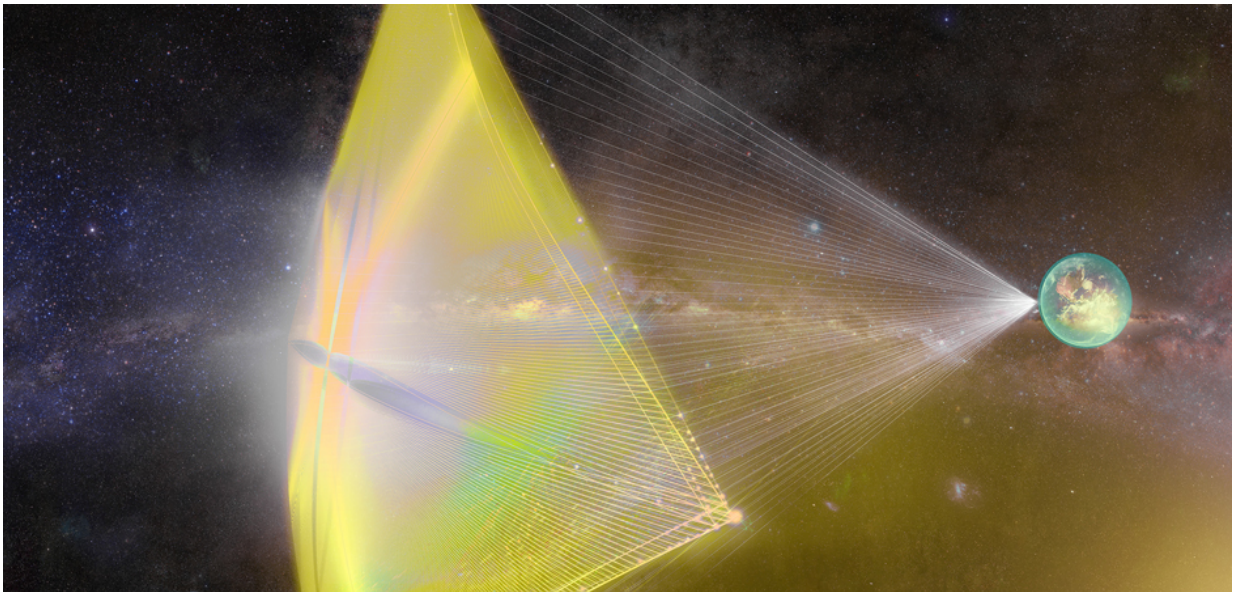


Preliminary results of Breakthrough Listen project released

April 25 2017, by Bob Yirka



(Phys.org)—The team of researchers working on the Breakthrough Listen project (based at the University of California, Berkeley SETI Research Center) has released preliminary findings after sifting through several petabytes of data obtained from three telescopes involved in the research project. The findings have been made available on the project's [website](#) as the team awaits publication of a paper in the *Astrophysical Journal*.

The Breakthrough Listen project was publicly announced in 2015, and has been backed by Stephen Hawking and perhaps more importantly by Yuri Milner, a Russian billionaire who, along with other backers, has put \$100 million toward the 10-year project. Over the past two years, the Parkes Telescope in Australia, the Green Bank Telescope in the U.S. and the Automated Planet Finder optical telescope at Lick Observatory also in the U.S. have been dedicated to listening to [radio signals](#) emanating from space in the hope that one or more of them might be generated by alien life forms.

Several petabytes of data have been collected after pointing the telescopes at 692 stars—each gets three five-minute observations, which are interspersed with observations of other targets. Thus far, the team has designated 1709 stars for study. The team has also broken down the stars to be studied into two categories: those within 16 light years of the sun, and those belonging to a sample spread across a main sequence and some branch stars which are no more than 163 light years away.

Project members made headlines last year when they noticed irregular dimming by Tabby's Star—subsequent study suggested that rather than indicating signs of extraterrestrial life, the dimming was most likely caused by comet fragments interrupting signals.

The team reports that to date, [project](#) members have identified 11 signals as worthy of a closer look, but at this time, do not believe any of the signals represent alien communications. They also note that the process of sifting the data is rather simple and straightforward—first, distinguish artificial signals from natural signals by looking at irregular behavior such as modulation or pulsing patterns. The next step involves making sure any such irregularities are not generated here on Earth. The software is open source so that anyone who wishes to participate in the search can do so.

More information: Breakthrough Listen:
breakthroughinitiatives.org/News/10
seti.berkeley.edu/lband2017/index.html

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