

39th SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The
Next Steps (A4)
SETI I : SETI Science and Technology (1)

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A SETI SEARCH IN THE ANTI-SOLAR DIRECTION USING THE ALLEN TELESCOPE ARRAY

Abstract

An implicit requirement of nearly all SETI searches is that any extraterrestrial signal is persistent, and will incessantly wash over our planet for thousands of years or more. This optimistic assumption is mandated by the fact that our observations of other star systems are made at (for them) random epochs. We insist they be broadcasting at a time commensurate with our listening experiment.

Several schemes for avoiding this presumption have been made, including the suggestion that an extraterrestrial society might time its transmissions to reach our solar system just as Earth is transiting the Sun, as seen from their world. This would serve as a way to indicate to us where to look for a signal, and when. The appropriate SETI strategy to find such a signal is to observe a half-degree-wide field in the anti-Sun direction.

We report here preliminary observations made with the Allen Telescope Array in an attempt to find such transit-timed signals in the 21 cm radio band.