

# A New Paradigm for Optical SETI in Boquete

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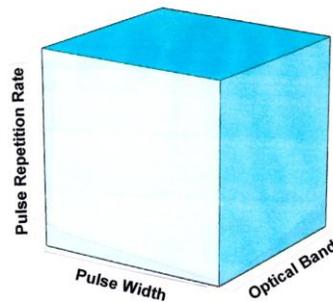
**In a nutshell.** By making some new assumptions, my feeling is that the chances for detecting alien intelligence using the present equipment has dramatically improved. Instead of the previous belief of a near zero chance of success, there seems now to be an almost quantifiable potential for success - possibly even in the near term.

**The previous, Pessimistic Assessment of SETI (Let's call it PASSE').** It was previously assumed that any alien transmitting facility would only intermittently target earth. Thus, each star was required to be observed again and again trying for the hit and miss chance of synchronicity while presenting a vanishingly low probability of success. That might be alright if there were but few candidate stars – but hundreds of thousands? It seems more likely that aliens would pursue a strategy having a much, much greater probability of success.

**The new, Optimistic Assessment of SETI (OPASS).** A new approach to the problem has been considered here. The OPASS strategy is based on the view that aliens would reject the PASSE' approach in favor of success oriented projects. After all, major projects here are undertaken by applying our best efforts; it's the way we build dams, bridges, space ships, etc. The following assumptions are the basis for the new paradigm.

- Alien civilizations can be highly advanced, (stars' ages average 1 billion years older than Sol).
- At least one technological civilization exists per 100,000 stars (arbitrary).
- It is recognized that there is at least one planet in the habitable zone for every two (recent) to four stars.
- Older civilizations have had plenty of time to develop communications with other star systems.
- Aliens have methods to detect signs of life on exoplanets, i.e. atmospheric analysis and other, thus minimizing the number of targeted stars and providing the best chances for success.
- Advance civilizations have an interest in announcing their presence to lesser advanced civilizations.
- For targeted communications, a maximum distance of 500 light years is considered; this includes several hundred thousand candidate stars (G, K, M and a few older F type).
- *Alien laser transmission systems are designed for success, i.e., satellite based with continuous, potent and obvious, pulsed beacon signaling.*
- *Revised July, 2017. Adhering to the idea that a beacon signal should either be there or not, the Boquete Observatory will observe each star system only once with current detection parameters. As the parameter space is expanded, all stars will need to be re-examined. It is an inefficient iterative process for which there seems to be no shortcut.*

**It also needs to be stated** that laser beacon transmission and reception characteristics are to a large extent self defining.



That is, economics and other technical aspects detailed elsewhere in this website define a set of laser pulse transmission characteristics that make small telescopes and simple detectors a preferred receiving system. The observatory's pulse detector covers the most of the box, i.e. parameter space. Admittedly, thoughts on this evolve with time and the box is larger today than even a year ago.

**The Boquete Optical SETI Observatory (BOSO)** is currently the only optical observatory dedicated to full time searches for ET. (Shocking isn't it).

Later this year, a second private observatory, owned by Bruce Howard, will be running full time searches in Michigan. His website may be found at [www.owlobservatory.com](http://www.owlobservatory.com). Bruce and I collaborate frequently toward achieving the best results with our limited resources.

More researchers are needed.