BY **ROBERT POLLACK** (HTTP://WWW.TRACESONLINE.ORG/AUTHOR/RPOLLACK/) / SEPTEMBER 25, 2015

THE NEW SETI INITIATIVE: IS THERE INTELLIGENT LIFE ON EARTH?

Yuri Milner has just given $100 million to the Search for Extraterrestrial Life (SETI). His Breakthrough Listen Initiative is a generous and well-meant gift to scientists all over the world. There is something not right about it, though.

Let's look at the numbers. Earth is one of a very large number of planets in our galaxy. If even a few percent of the hundred billion stars in the Milky Way have planets, then this enhanced SETI will be seeking electromagnetic signals from billions of planets. And our galaxy is one of about a hundred billion galaxies, each with a similar number of stars and – why not? – a similar number of planets in each too. So on the face of it, the search for a signal makes a lot of sense.

But then, we need to think about how slow light is. The speed of light so slow that it takes minutes for light from the Sun to reach the Earth, and hours for signals from our own satellite to reach us from Pluto. Those billions of stars in the Milky Way are going to be hundreds of thousands of light-years from us. That means the light and the signals that this Initiative may detect will very likely be coming from the distant past: that signal might have left a planet in the Milky Way 20,000 years ago—at a time when our species had not yet reached the Americas in its migrations out of Africa.

The Initiative is going to go further into the past than that. It will be searching for signals from planets in other galaxies as well. Any signal detected that way will be coming from hundreds of thousands to hundreds of millions of years ago, so it is quite possible that our species did not exist when such a signal would have been sent. Who cares, one might ask, when the signal was sent? We should care, and that is what is wrong with the Initiative: it does not ask us to care.

There is a real possibility that intelligent life may have a very short lifetime on this planet. We have been sending out our own signals for no more than a century or so. In that century we have seen tens of thousands of hydrogen bombs stockpiled for future mutually assured destruction. Considerable fractions of other species have been destroyed; CO2-driven heat energy is boiling our oceans and our atmosphere, and many other strands of evidence that say we are risking not only the ecology of

our planet, but our own survival as a technological (radio wave emitting) species.

So let's take the Initiative at its own word, and assume species like ours are not special, nor are we rare. Then we should imagine that any other planet with life runs the same risk: that their signal will be shut down after a few centuries of failure to moderate impulses to rule each other and the planet. How sad but how necessary it is for us to realize that when the initiative does detect a signal from 100,000 light years away, we might be picking up the thinnest of shells of information, a hollow sphere no thicker than a few hundred light-years deep.

My suggestion is this: Let's keep looking, but as we look, let's try our best to make sure our sphere of intelligent signaling does not shut down. If it did, the spherical shell would keep expanding out into the universe at the speed of light, but it would be our epitaph, not our sign of life. To avoid that fate, we can turn from this Initiative to the recent Papal Encyclical for advice: "…244. In the meantime, we come together to take charge of this home which has been entrusted to us…" The first SETI Initiative should be to make sure that there is intelligent life on Earth, and that it uses that intelligence to "Take charge of this home" so that it can remain here indefinitely.

Printer Friendly Version(http://www.tracesonline.org/2015/09/the-new-seti-initiative-is-there-intelligent-life-on-earth/print/)