

SETI – WHY THE RADIO SILENCE? by Ananda L. Sirisena

This paper explores several reasons why the Search for Extraterrestrial Intelligence (SETI) may not have detected radio signals emanating from outer space. It explores many possibilities – including the highly controversial one that ET may already be here and may have communication with terrestrials of their choice rather than world governments or scientific bodies. Rumours of ET communication with military intelligence is considered as well as the perplexing logic prevailing around the whole issue of ET.

Radio SETI is based on several assumptions which have not been challenged in scientific journals. One example of this is the assumption that we would be able to decode or decipher any signals detected by our listening posts. Another one is that ET is necessarily using radio for very long distance communications. Signals travelling at the speed of light cannot even provide real-time control to probes at Mars, never mind instrumentation control across extra solar distances.

This paper is based on a presentation given at BIS on 10 May 2006 at the symposium “Archaeology for Space”.

Why the radio silence? Two possibilities: (1) there is no ETI (extraterrestrial intelligence) whatsoever in this galaxy or anywhere in the vast universe (2) there are many ET races but they are not using radio because it is too slow for interplanetary or intergalactic distances.

The first possibility is rejected on the grounds it is illogical. The second possibility is certainly worthy of scientific attention. Civilizations are considered at four levels:

Level 1: No development of radio – unlikely to have any space travel

Level 2: Radio discovered but travel limited to interplanetary distances, similar to terrestrial science

Level 3: Developed past radio – unknown technologies used for galactic exploration

Level 4: Intergalactic travel at unimaginable speeds, using unimaginable science and technology, leaving exotic energy and/or matter markers along the way.

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Why the radio silence at Earth? Several reasons come to mind: (a) Signals received but not recognised - modulated or encrypted beyond human understanding.

(b) Signals received and decoded but not revealed to the public

(c) Other, more subtle forms of communication – not using EM spectrum e.g. telepathic or parapsychological in nature.

Issues around ETI

- **Does ETI exist in the galaxy?**

What forms? Artificial intelligence, organic, cybernetic or other such as android.

- **How old are ET civilizations?**

Presumed ancient; older civilizations likely to be more developed, assuming survival

- **How far away are ETI civilizations from us?**

Could be next door, i.e. interplanetary; or within 500 light years would be considered contactable in some way. Considering that our Milky Way Galaxy is 100,000 light years in diameter, this seems a reasonable and practical distance to do a sweeping search.

- **How advanced is ETI technologically?**

Can be presumed to be 1000 years beyond Earth technology. Imagine their science if they are 10,000 years more advanced, or 100,000 years or even a million years more advanced!

- **What could be the manifestations of ETI technology?**

Laser pulses, radio beacons, robotic probes, energy emissions or other

- **How do we search for ETI?**

Optical telescope, radio telescope, sensor platforms such as were initially used by the US Air Force in its early investigation of “flying disks” in Project Sign

- **Should we be searching/trying to make contact?**

As the scientific debate continues, opinion polls say undoubtably “Yes”.

Technological manifestations of ET

- Two types: energy markers and/or matter markers
- Electromagnetic energy (EM) markers, (maybe non-EM also)
- Narrow band beacons [Cocconi and Morrison]
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- RF beacons/surveillance
- Radar and telecommunications leakage
- Pulsed laser beacons [Oliver, Ross et al]
- Laser optical communications [Schwartz and Townes]
- Hyperfine line emissions and/or Artificial emission lines [Kardashev, Steffes]
- Stellar dumping (to alter solar emission spectra) [Drake, Sagan, Shklovski]
- Supernova X-ray echoes [McLaughlin]
- Gamma bursts from propulsion systems [Freitas, Zubrin]

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Matter markers: probes/artifacts

- Relativistic or fast flyby's [Maccone et al]
 - Ancient artifacts
 - Asteroid belt artifacts [Pappagannis]
 - Heliocentric orbits (elliptical or Earth-crossing)
 - Self-reproducing automata (also known as Van Neumann probes) [Boyce et al]
 - Libration points / geocentric orbits; Earth-Moon-Sun parking orbits [Freitas and Valdes]
 - Lunar orbiters/artifacts [Arkiphov]
 - Messenger probes [Bracewell, Freitas]
 - Dyson's spheres or O'Neills colonies [Dyson, O'Neill]
- (With thanks to Scot Stride at JPL)

NASA photo 20143034

- **Adams Bridge**
- **A natural bridge from India to Sri Lanka?**
- **or was it man-made a long time ago?**
- **“RAMAYANA” legends speak of aerial vehicles (long before manned flight) as well as a bridge between the two countries**

Is ET visiting now?

- 58 years of official denial, despite radar & visual sightings; film and photographs and verbal evidence from credible witnesses.
- Thousands of sightings of ‘structured craft’
- Many claims of contact through the ages, including modern “telepathic” reports
- SCIENCE AT FAULT FOR NOT INVESTIGATING UFO REPORTS

The UFO Phenomenon

- Evidence of ET visitation?
- Professor J. Allen Hynek wrote: “UFOs – A Scientific Inquiry” and:
 - “The Hynek UFO Report”
 - US Air Force: SIGN => GRUDGE => BLUEBOOK Closed down in 1968
 - Why the embargo? (Deardorff - ICARUS)
- Dr. J.A. Hynek was official consultant to the US Air Force for 22 years before Project Blue Book was closed down
- Dr. McDonald was an atmospheric physicist with a deep interest in the UFO subject and conducted many personal investigations

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My own sighting (at Wimbledon, London, on 8th July 1964)

- About 8.50 am
- Bright sunny day
- White fluffy clouds
- 3 silver discs
- Altitude between one thousand and two thousand feet
- Have remained interested in UFOs since summer of 1964

My interview in 1981 with Arthur C. Clarke

- He stated, “UFOs need 2 decades of neglect”
- He stated, “Sorry to hear that more and more scientists are taking an interest in the subject”
- Some perplexing logic!!

Viking Lander tests (1976)

- Pyrolytic Release (Photosynthesis) +
- Gas Exchange (Respiration) +
- Labelled Release (Metabolism) +
- NASA decides no life on Mars!
- Interview with Dr. Gilbert Levin, designer of the Labelled Release experiment who says there is evidence of microbes

A few closing thoughts

- “Absence of evidence is not evidence of absence;”
- “We can only guess as to the motives of ET visitors or their long term plans, as we have no knowledge of possible cosmic protocols, interactions or confederations.”
- Be prepared for surprises as we explore our solar system and beyond.....