

SETI in the Ecliptic Plane

Transit Discovery of an Oxygen Planet - one with a Moon!

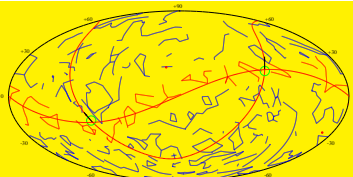
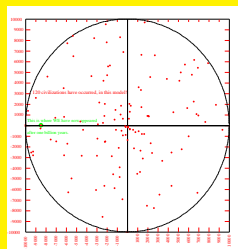
We report the discovery of an oxygen planet that possesses a moon. We have named the newly-discovered planet "Earth." This is only the third oxygen planet we have discovered in our 2.5 million years of searching the heavens. As you know, oxygen is a sure sign of life, and life, as in our case, can take billions of years to evolve to intelligence.

Just as in the other two cases, we will immediately begin sending a tight beam of radio radiation (as well as laser beams) in the direction of Earth. As you know, in the other two cases we have been sending such beams for 2.1 million and 0.6 million years respectively. Our grand hope is that eventually we will receive a response from our colleagues across the galaxy.

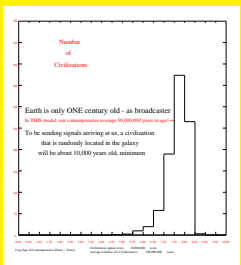
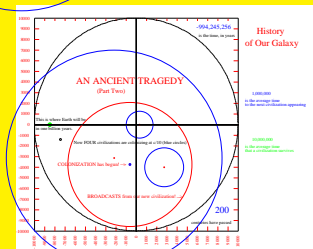
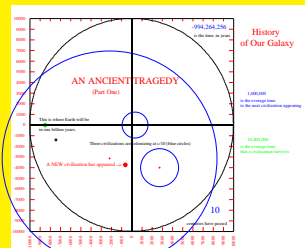
When intelligent life does appear on Earth, we hope that they are intelligent enough to realize that if we exist at all, then the place to look for us is in Earth's Ecliptic Plane, because transits of Earth are the only possible way we could know of their existence.

We must hope that intelligent life will appear on Earth in the next hundred thousand years or so, or else differential rotation of the galaxy will have moved us from their ecliptic plane, making detection of us more difficult.

Meanwhile, budget disputes between the administration and Congress have once again seriously delayed our first interstellar colonization plans....



Ecliptic constellations are in red.
Green circles identify two prime search targets.



Earth is only ONE century old - as broadcasted by SETI and conventional means. SETI can detect civilizations that are randomly located in the galaxy will be about 10,000 years old, minimum.

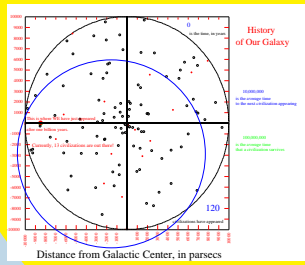
Transit of Earth and Moon, viewed from Jupiter 2001 January 01 05:00:12 UT

ABSTRACT

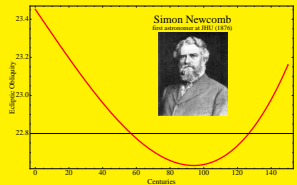
The strong advantages of SETI searches in the ecliptic plane have been pointed out by Kilston, Shostak, and Henry (2008). In our poster we show one possible history of civilizations in the galaxy, from birth, through galactic colonization, up to death - and even beyond. Should this scenario be correct, the pattern suggests that the best hope for success in SETI is exploration of the possibility that there are a few extremely ancient but non-colonizing civilizations; civilizations that, aeons ago, detected the existence of Earth (oxygen, and hence life) and of its Moon (stabilizing Earth's rotation) via observations of transits of the Sun (hence, ecliptic, which is stable over millions of years [Laskar et al. 2004]), and have been beaming voluminous information in our direction ever since, in their faint hope (now realized) that a technological "receiving" species would appear. To maintain such a targeted broadcast would be extremely cheap for an advanced civilization. A search of a swath centered on our ecliptic plane should easily find such civilizations, if they exist. We hope to carry out such a search, using the Allen Telescope Array.

Kilston, Steven; Shostak, Seth; & Henry, Richard Conn; "Who's Looking at You, Kid?: SETI Advantages near the Ecliptic Plane." AbsSciCon 2008, April 14-17, Santa Clara, CA; Laskar, J., et al., A&A 428, 261, 2004

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Distance from Galactic Center, in parsecs



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