Are There Earth-like Planets?

Dr. Danny Faulkner
I would like to personally thank you for watching the Origins television program. This show was special, near to the heart of my parents, Russ and Norma Bixler.

I trust that the information in this presentation will be helpful in your study of creation science. Thank you for your prayerful and financial support of Origins... you're making the television production of this program possible!

Also available now a legacy website dedicated to my parents at russandnormabixler.com.

Paul R. Bixler
Producer/Editor
Now faith is confidence in what we hope for and assurance about what we do not see.

-Hebrews 11:1

Greetings and welcome to the Russ and Norma Bixler legacy website. Our family trusts that your visit today will provide strength, hope and encouragement to you.
Why Belief in Earth-Like Worlds is Common

If life arose on earth naturally, then life must not be unique to earth

- Billions of galaxies
- Billions of stars
- Billions of planets
- Play the odds
Evolution suggests that many other planets are inhabited.
Earth was specifically created to be inhabited (Isaiah 45:18)
For thus says the LORD, who created the heavens (he is God!), who formed the earth and made it (he established it; he did not create it empty, he formed it to be inhabited!):

I am the LORD, and there is no other.
The Special Place of Man in God’s Creation (Psalm 8:3-6)

When I look at your heavens, the work of your fingers, the moon and the stars, which you have set in place, what is man that you are mindful of him, and the son of man, that you care for him? Yet, you have made him a little lower than the heavenly beings and crowned him with glory and honor. You have given him dominion over the works of your hands; you have put all things under his feet.
The Earth is Special
What Does it Mean for a Planet to be Earth-Like?

- Orbit right kind of star
- Orbit proper distance (habitable zone)
- Have the right mass
- Have the right composition
- Have the right atmosphere
How Does the Solar System Fare?
Extrasolar Planets

Planets orbiting other stars

Several methods

• Doppler Motion
• Look for transits
PSR B1257+12: The First Confirmed Discovery (1992)

- Three terrestrial planets orbiting a pulsar
- How did these planets survive the formation of the pulsar?!
51 Pegasi b: First Extrasolar Planet Around a MS Star (1995)

- Orbits G type star
- 4 day orbit
- Minimum mass half of Jupiter’s mass
- Very close to star
The Kepler Mission
What Have We Found?

1. Planets are common (2,000 so far)
2. Solar systems may be common
3. Earth-like planets are not common (unique?)
4. No habitable planets yet
5. The solar system is unusual (unique?)
What about Earth-Like Planets?

Must be in the habitable zone

- Gliese 581 d
  - Eccentric orbit
  - Likely synchronous rotation
  - Star is a variable (BY Draconis)

- HD 85512 b
  - On the edge of habitability
There’s No Place Like Home
Are There Earth-Like Planets?