

Joel Dejean: Kepler and the James Webb Space Telescope

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Johannes Kepler was born on December 27, 1571, 450 years ago today. Using the naked-eye observations of Tycho Brahe, he was able to formulate the laws of planetary motions that are being used to guide the James Webb Space Telescope, launched on Christmas Day, to its observation station 1.5 million kilometers from Earth.

While working on his Harmony of the World, Kepler and the rest of Europe were at the beginning of what became to be known as the Thirty Years' War, which killed a third of Europe's population. Today, we are in danger of sleep-walking into a thermonuclear war, which would wipe out all human civilization. Let us use the example of the James Webb Space Telescope, where scientists and engineers from 14 nations, working over 25 years, and spending 200 times less than that spent over the last 20 years by the U.S. and NATO to destroy Afghanistan, as an example of what Mankind is capable of, when it puts its mind into a truly human goal.

Think of what Kepler was able to discover about the Solar System, using only naked-eye observations. What will a future

Kepler be able to discover about the universe, using fantastic instruments like the James Webb.