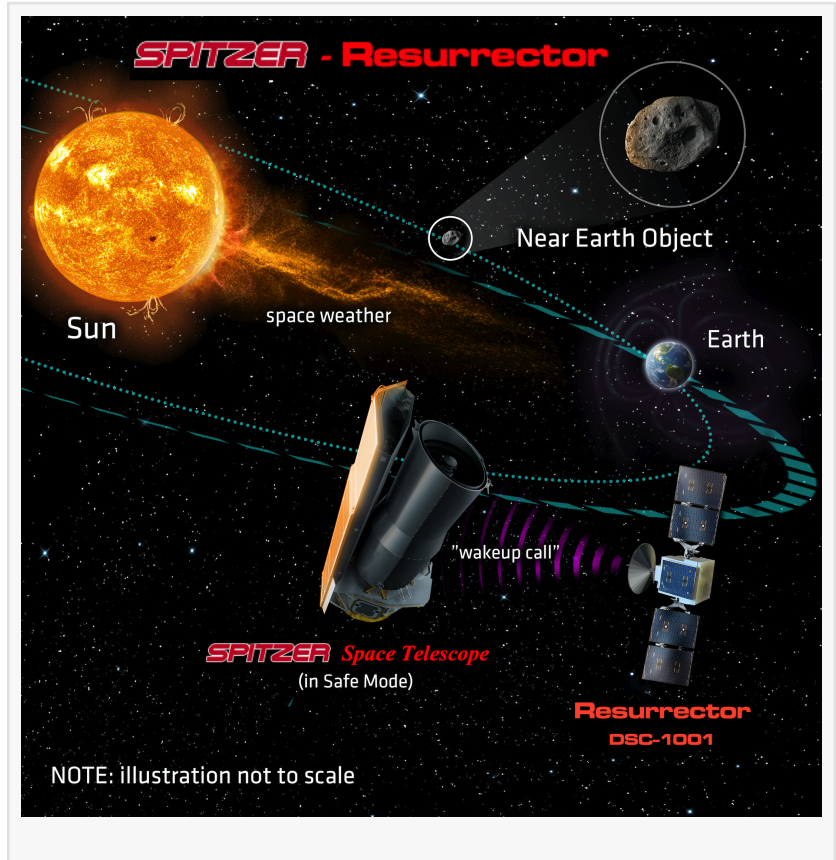


Rhea Space Activity awarded a USSF Contract to Investigate Telerobotic Resurrection of the Spitzer Space Telescope

Rhea Space Activity has been awarded a Phase I STTR and is Pursuing a Phase II STTR under the SpaceWERX Orbital Prime Program

WASHINGTON, DC, USA, May 10, 2023

[/EINPresswire.com/](https://www.einpresswire.com/) -- Rhea Space Activity (RSA) announces that it has been selected by SpaceWERX for a STTR Phase I in the amount of \$250,000 to develop the Spitzer Resurrector Mission. This spacecraft would travel to NASA's Spitzer Space Telescope to service and restore it to operations, and thereby demonstrate the "In-space Service Assembly and Manufacturing (ISAM)" techniques being explored by the Department of the Air Force (DAF) and United States Space Force (USSF). Spitzer Resurrector plans to launch by 2026. Rhea Space Activity is partnered with the Smithsonian Astrophysical Observatory, Johns Hopkins University Applied Physics Laboratory, Blue Sun Enterprises, and Lockheed Martin.



Originally launched in 2003 as the last of NASA's four Great Observatories, the Spitzer Space Telescope's lifetime design goal was five years. Instead, the spacecraft performed its mission for more than 16 years. Spitzer orbits the Sun at one astronomical unit (AU) in an Earth-trailing orbit, and is currently is about 2 AU away from the Earth on the other side of the Sun (one AU is the average Earth-Sun distance). In its current location direct communications with Earth are not possible. Although it was working perfectly and was heavily in demand by the scientific community, in response to the challenging orbit NASA decided to retire it in 2020, placing it in safe mode. Spitzer Resurrector is designed to restart Spitzer, confirm that it has been restored to its original performance capabilities, and then to remain nearby to act as a high-rate data

relay to Earth, thus restoring Spitzer to its full efficiency.

Spitzer-Resurrector is a telerobotic servicing spacecraft that would travel over 186 million miles to Spitzer in order to return it to service. Once “resurrected,” Spitzer will be used to detect and characterize potentially hazardous Near Earth Objects, a scientific program that Spitzer originally helped pioneer with its sensitive infrared detectors. It can also continue to perform astronomical observations.

Shawn Usman, Astrophysicist and CEO of RSA, described the effect Spitzer Resurrector would have on the ISAM industry: “The ISAM implications of resurrecting Spitzer are jaw dropping. This would be the most complex robotic mission ever performed by humanity. As a teenager in the 1990s I watched U.S. astronauts repair the first Great Observatory, the Hubble Space Telescope (HST), and now Rhea Space Activity has been given the opportunity to telerobotically extend the life of the last Great Observatory, the Spitzer Space Telescope. I am humbled to have Dr. Giovanni Fazio, the Principal Investigator of Spitzer’s Infrared Array Camera (IRAC), as a Co-Investigator on this ambitious mission.”

Dr. Giovanni Fazio, Senior Physicist, Smithsonian Astrophysical Observatory, is the recipient of numerous distinguished awards including the SPIE George W. Goddard Award in Space and Airborne Optics “for his exceptional achievements in the area of infrared instruments.” Dr. Fazio was previously a pioneer in gamma-ray astronomy and balloon-borne telescopes. The SAO science team played a lead in development of the IRAC instrument’s command protocols, calibrations, and operations. The Spitzer Space Telescope was NASA’s premier observatory to study the universe in its infrared radiation and its fourth “Great Observatory,” offering astronomers and the public a chance to see and study the invisible universe in this critical part of the electromagnetic spectrum with unprecedented clarity and sensitivity. The IRAC instrument alone has so far led to over 8,000 published papers.

Dr. Christopher Grasso, CEO of Blue Sun Enterprises, recounted, “Spitzer was my favorite mission. Early in my career, I developed and coded the flight sequencing system for the telescope. JPL wanted a brand new way of doing operations, I gave it to them, and Spitzer flew it. Getting to bring my favorite spacecraft back to life in deep space from across the solar system, using the latest version of the same sequencing software, makes me proud to work on this project.”

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About Rhea Space Activity

Rhea Space Activity (RSA) is an astrophysics company that ideates and creates high-risk/high-reward research and development concepts to support U.S. national security objectives. RSA is

partnered with the Smithsonian Astrophysical Observatory, the Johns Hopkins University Applied Physics Laboratory, Blue Sun Enterprises, and Lockheed Martin in pursuit of the Spitzer Resurrector mission. RSA has developed various technologies in the fields of infrared satellites, directed energy, artificial intelligence, Light Detection and Ranging (LIDAR), astro-particle physics, small satellites, cis-lunar operations, intelligence collection, autonomous underwater vehicles, and for the F35 Lightning II.

For more information, please visit www.rheaspaceactivity.com

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