

Vera C. Rubin Observatory

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The Vera C. Rubin Observatory, an astronomical facility in Chile (8,684 feet above sea level atop Cerro Pachón mountain), released its first test images, utilizing the Simonyi Survey Telescope as its primary instrument.

Vera C. Rubin Observatory

- About: It is an astronomical observatory built to conduct the most comprehensive survey of the southern hemisphere's night sky through continuous scanning.
 - It is named in honor of American astronomer Vera C. Rubin, who was the first to provide evidence for the existence of dark matter in the 1970s.
- Uniqueness: Its Simonyi Survey Telescope features a wide field of view, capable of capturing an area equivalent to 40 full Moons in a single shot—vastly surpassing the <u>Hubble SpaceTelescope</u> (1%) and James Webb Space Telescope (75%) in coverage.
 - It houses the world's largest digital camera with 3,200 megapixels, enabling it to detect objects 100 million times dimmer than those visible to the naked eye.
 - Additionally, it is the fastest-slewing telescope, able to adjust its position in just five seconds.
- Purpose: It will help explore the nature of <u>dark energy</u> (68%) and dark matter (27%), which together make up 95% of the universe, while visible matter forms just 5%.
 - It is aimed at addressing key astronomical questions, including the formation of the <u>Milky Way</u>, existence of the **9th planet** in our solar System and threat of an asteroid to Earth.

Read More: Dark Matter and Dark Energy

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