

《美国航空航天局将使用足球场大小的气球研究恒星》

NASA is taking research to new heights -- and lengths -- with an ambitious upcoming mission.

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ASTHROS (Astrophysics Stratospheric Telescope for High Spectral Resolution Observations at Submillimeter-wavelengths) is a balloon that will carry a telescope into the stratosphere to study the cosmos and "observe wavelengths of light that aren't visible from the ground," NASA says.

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A gondola will be used beneath the balloon to carry the instrument as well as the telescope, which is made up of an eight-foot antenna and several mirrors, lenses and detectors.\

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To do this successfully, ASTHROS has to hit an altitude of around 130,000 feet (roughly 24.6 miles), which is about four times higher than commercial airliners fly! As for the dimensions of the balloon itself, it measures 400 feet wide -- about the size of a football stadium, according to the release.

????????ASTHROS????130,000??(24.6??)????????????????!????????400????????????

The team has put finishing touches on cooling and electronic systems involved, and in August, engineers will perform tests to make sure they run smoothly.

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NASA says the balloon is expected to make two or three loops around the South Pole in about 21 to 28 days, studying regions in the Milky Way galaxy, newborn stars, nitrogen ions and more.

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After the mission is completed, operators will send commands that effectively separate the gondola, which is connected to a parachute, from the ballon. The gondola will then fall to the ground so the telescope can be collected and refurbished for future flights.

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