



THE BIG PICTURE



An aerial photograph showing the construction of the Five-hundred-meter Aperture Spherical radio Telescope (FAST) in a deep valley. The image captures the long, curved steel truss structure of the telescope's rim, which is being built into the natural contours of the landscape. Several tall, lattice-like towers are visible, supporting the structure. The surrounding area is a mix of green vegetation and cleared construction sites. The overall scene conveys the massive scale and unique engineering of the project.

DEEP-DISH PEEPER

ENGINEERS WORKING on the Five-hundred-meter Aperture Spherical radio Telescope, or FAST, being built into a valley in Guizhou, China, hope to finish installing the radio telescope's 4,450 triangular panels by next September. The panels, whose attitudes can be adjusted to form parabolas that point in different directions, will let scientists pick up faint signals originating more than 7 billion light-years away. To accommodate the data collected by the giant sensor—which will overtake the Arecibo Observatory in Puerto Rico as the world's largest and most sensitive radio telescope—a supercomputer capable of executing 10^{15} floating-point operations per second is being built to accompany it.

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