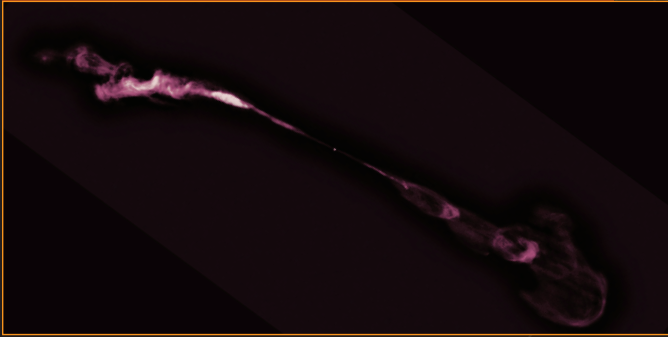
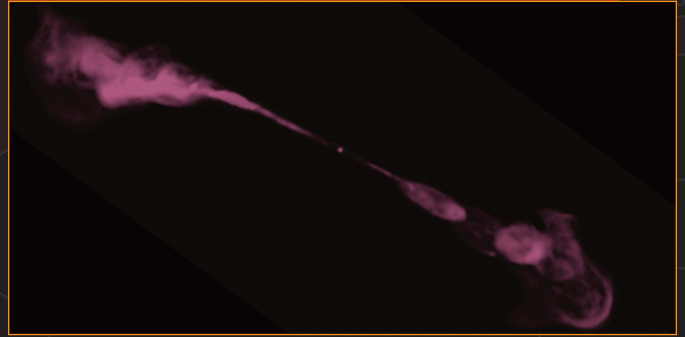


The four antenna configurations of the Karl G. Jansky Very Large Array (VLA) work together to reveal the jets emerging from galaxy Hercules A. Compact antenna spacings provide maximum sensitivity to diffuse clouds. Wide spacings provide the resolving power needed to see fine details. Combined, they yield a complete picture.

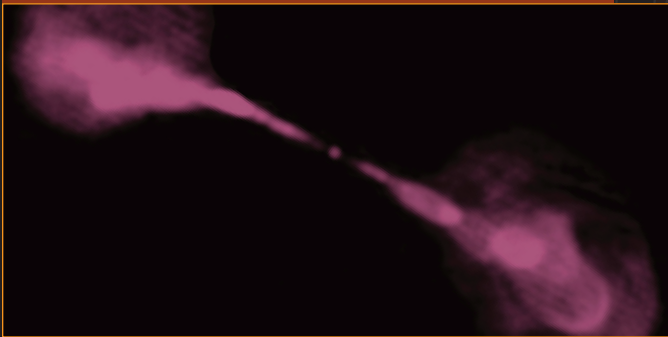
**Configuration A** : 22 mile array diameter



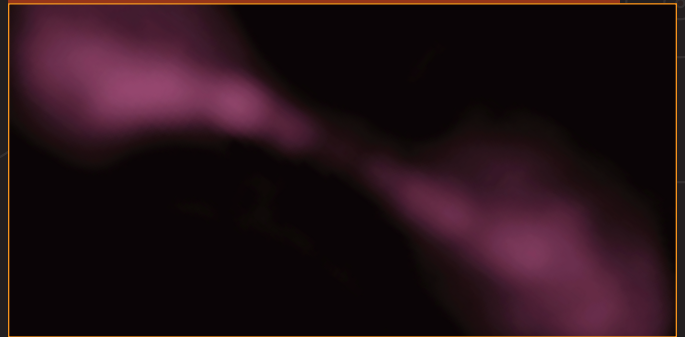
**Configuration B** : 7 mile array diameter



**Configuration C** : 2 mile array diameter



**Configuration D** : 0.6 mile array diameter



## A Multi-Wavelength View of Radio Galaxy Hercules A

Spectacular jets powered by the gravitational energy of a supermassive black hole in the core of the elliptical galaxy Hercules A illustrate the combined imaging power of two of astronomy's cutting-edge tools, the Hubble Space Telescope's Wide Field Camera 3, and the recently upgraded Karl G. Jansky Very Large Array (VLA) radio telescope in New Mexico.

The VLA radio data reveal enormous, optically invisible jets that, at one-and-a-half million light-years wide, dwarf the visible galaxy from which they emerge. The jets are very-high-energy plasma beams, subatomic particles and magnetic fields shot at nearly the speed of light from the vicinity of the black hole. The outer portions of both jets show unusual ring-like structures suggesting a history of multiple outbursts from the supermassive black hole at the center of the galaxy.



*Credit: NASA, ESA, S. Baum and C. O'Dea (RIT), R. Perley and W. Cotton (NRAO/AUI/NSF), and the Hubble Heritage Team (STScI/AURA)*