

<p>Hubblecast Episode 46: A Tour of Centaurus A</p>		
<p>00:00 [Narrator] The Hubble Space Telescope has produced a close-up view of the galaxy Centaurus A. Hubble's multi-wavelength image is the most detailed ever made of this dynamic and dusty galaxy.</p>		
		
<p>00:39 [Dr J] Hello and welcome to the Hubblecast.</p> <p>Centaurus A is well known for its huge dust lanes that stretch across the entire extent of the galaxy. Hubble's new observations are an extreme close-up of a small part of these dust lanes.</p> <p>This new image is made from observations in ultraviolet, optical and near-infrared light. The ultraviolet light shows us the location of hot young stars, whereas the near infrared light allows us to glimpse some of the details that are obscured by dust in the optical.</p>		
<p>01:11 [Narrator] Astronomers think that Centaurus A must have collided and merged with another galaxy at some point in the past.</p> <p>The shockwaves of this event caused hydrogen gas to coalesce and sparked intense areas of star formation, as seen in the red patches visible here.</p> <p>The turmoil of this collision also explains the warped shape of the galaxy's disc.</p>		

<p>01:41 [Dr J] Looking at a broader view taken by ESO's Wide Field Imager reveals the extent of the distortion in Cen A's shape, as well as further areas of vigorous star formation.</p>		
<p>01:52 [Narrator] The galaxy contains a highly active supermassive black hole at its centre. Powerful relativistic jets release vast amounts of radio and X-ray radiation. Although Hubble can't see this, submillimetre telescopes like APEX can see broad plumes of matter being ejected far out from the galaxy.</p>		
<p>02:17 [Dr J] At just over 11 million light-years distant, Cen A is relatively close in astronomical terms. In fact, it's not only close, it is very bright. Amateur astronomers with a view of the southern skies can see it with just a pair of binoculars, while those with a largish amateur telescope can even make out the dust lanes.</p>		
<p>02:37 [Narrator] But only Hubble reveals this much detail. Not only does the space telescope offer unprecedented clarity due to its position above the distorting effects of the atmosphere: it is also able to observe ultraviolet and infrared wavelengths with pristine clarity.</p>		
<p>02:58 [Dr J] This is Dr J signing off for the Hubblecast — once again nature has surprised us beyond our wildest imagination.</p>		

Ends 04:01