PKS 0637-72 is so distant that we see it as it was 6 billion years ago. It is a luminous quasar that radiates with the power of 10 trillion Suns. The source of this prodigious energy is believed to be a supermassive black hole. Chandra's X-ray image reveals a powerful X-ray jet extending away from the quasar that stretches across several hundred thousand light years. The jet, also observed by radio telescopes, is probably due to a beam of extremely high-energy particles.

Scale: Image is 1 arcmin on a side.