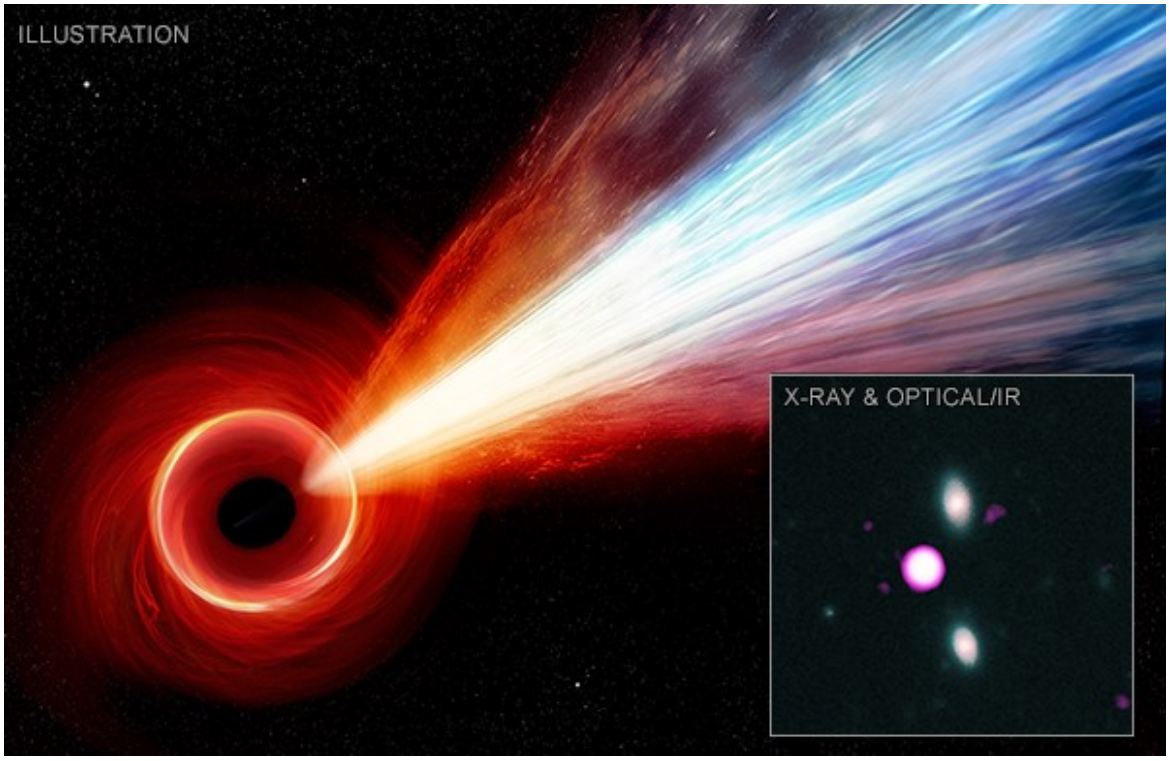

Chandra X-ray Observatory Center

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PJ352-15: A quasar, at a distance of about 12.7 billion light years.
(Credit: X-ray: NASA/CXO/JPL/T. Connor; Optical: Gemini/NOIRLab/NSF/AURA; Infrared: W.M. Keck Observatory; Illustration: NASA/CXC/M.Weiss)

Caption: Chandra data may have revealed the most distant known supermassive black hole with an X-ray jet. The source of this jet is a quasar (a rapidly growing black hole) at the center of a young galaxy about 12.7 billion light years from Earth. The main panel of this graphic is an artist's illustration of a close-up view of a quasar and its jet, like the one in PJ352-52. The inset contains X-ray data from Chandra of PJ352-15 (purple) that has been combined with optical and infrared data from the Gemini-North telescope and the Keck-I telescope respectively. This result may help explain how the biggest black holes formed at a very early time in the Universe's history.

Scale: Image is about 25 arcsec (475,000 light years) across.

Chandra X-ray Observatory ACIS Image

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