Chandra images of 56 elliptical galaxies have revealed evidence for unsuspected turmoil. As this sample gallery of X-ray (blue & white) and optical (gray & white) images shows, the shapes of the massive clouds of hot gas that produce X-ray light in these galaxies differ markedly from the distribution of stars that produce the optical light. A powerful source of energy must be pushing the hot gas around and stirring it up every hundred million years or so. Scientists’ analysis of the Chandra data indicates that this energy source can be traced back to the supermassive black hole in the galaxies' central regions.

Chandra X-ray Observatory ACIS Images

CXC operated for NASA by the Smithsonian Astrophysical Observatory