Relativistic Ejections Associated with High-energy Outbursts in the M87 Jet

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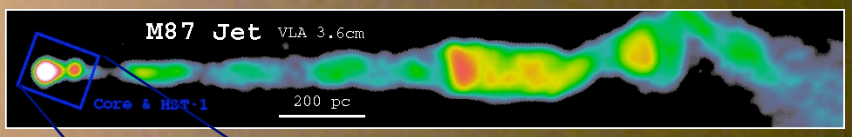
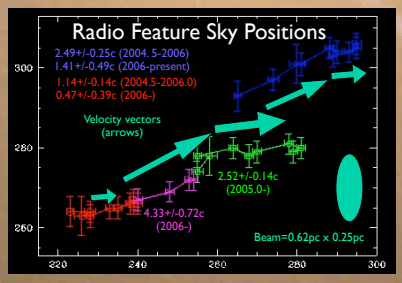
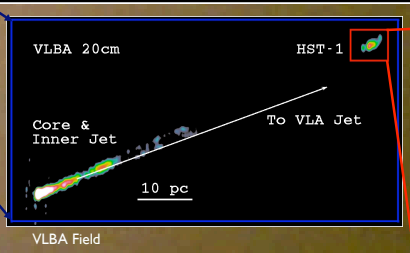
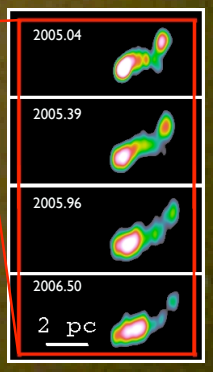






VLBA Field

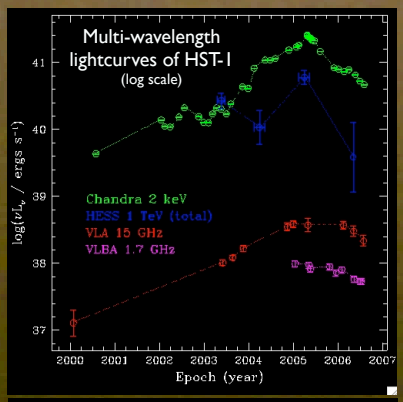


Sample VLBA images of HST-1 region

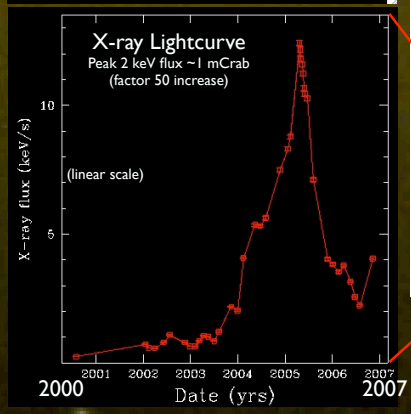
VLBA Detection of Multiple Superluminal Ejections in `HST-1'

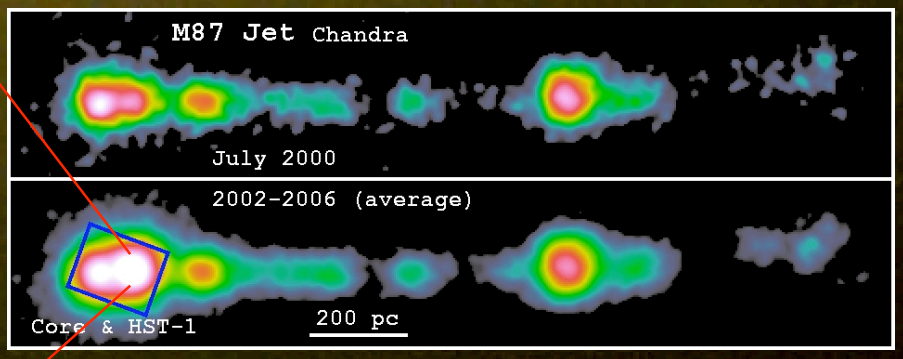
Genesis of superluminal ejections *and* multi-band variability isolated in the jet >120 pc from central engine.

Common wisdom assumes this happens much closer to (few-10 pc) and somehow related to the central supermassive black hole/accretion disk system



Multi-band Variability in HST-1
(jet knot >120 pc from Nucleus)





Variability results in Harris et al. (2003; 2006) & Perlman et al. (2003)

The National Radio Astronomy Observatory is operated by Associated Universities, Inc. under a cooperative agreement with the National Science Foundation.

Background: Hubble Heritage Image