



The Cluster active archive

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The four-satellite Cluster mission, launched in 2000 and scheduled to operate until the end of 2009, investigates the small-scale structure (in three dimensions) of the Earth's plasma environment, such as those involved in the interaction between the solar wind and the magnetospheric plasma, in global magnetotail dynamics, in cross-tail currents, and in the formation and dynamics of the neutral line and of plasmoids. The Cluster Active Archive CAA (<http://caa.estec.esa.int/>) will contain the entire set of Cluster high resolution data and other allied products in a standard format and with a complete set of metadata in machine readable form. The data archived are (1) publicly accessible, (2) of the best quality achievable with the given resources, and (3) suitable for science use and publication by both the Cluster and broader scientific community. The CAA will provide user friendly services for searching and accessing these data and ancillary products. The CAA became operational in February 2006 and currently has data from most of the Cluster instruments for at least the first three years of operations (2001-2003). The coverage and range of products is being continually improved with more than 200 datasets available from each spacecraft including high-resolution magnetic & electric DC fields and wave spectra; full 3D electron & ion distributions from a few eV to hundreds of keV; and various ancillary & browse products to help with spacecraft and event location. The CAA is continuing to extend and improve the online capabilities of the system. Two high priority activities are the development of an on-demand plotting capability and the provision of a machine accessible interface to support automated download requests.