

# CTA Data Requirements Update (September 2019)

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## OVERVIEW

The Cherenkov Telescope Array (CTA) is the next-generation gamma-ray observatory currently under construction. The observatory will provide access to archival data, the software for data processing and analysis, as well as all services for observation proposals.

CTA data could be incorporated as part of multi-wavelength studies of steady or extended sources or of transient or variable sources via light curves and spectral energy distributions. The scientific benefit of such broad-band and multi-messenger studies is these days beyond doubt and the large world-wide effort to construct new wide-field instruments from radio to X-ray astronomy is a testament to this. CTAs order of magnitude better sensitivity that current gamma-ray telescopes brings TeV astronomy into the mainstream. The ASVO could be a prime platform to link with new data from ASKAP, MWA, UTMOST and eventually SKA.

## DATA RATES AND VOLUME

The annual (reduced) raw data volume amounts to 3.7 PB. The total volume to be managed by observatory's archive is ~25 PB/yr for all data-set versions and backups. Besides the real data, simulations and instrument response functions need to be managed.

Figure 1 depicts the main path and rate of data within CTA.

