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# Monitoring evapotranspiration over the Crau Aquifer from remote sensing and flux tower data

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## Résumé

Evapotranspiration (ET) is a fundamental variable of the hydrological cycle which plays a major role on surface water and energy balances. At local scale ET can be estimated from detailed ground observations (eddy covariance towers). At regional scale remote sensing provides spatially distributed cost-effective information for mapping and monitoring ET. On one hand, a network of flux towers has been installed in the Crau-Camargue-Avignon area in the lower Rhône Valley for several years with the aim of providing reference data of ET over various ecosystems. On the other hand, the EVASPA (EVapotranspiration Assessment from SPAce) tool has been developed to produce ET maps at relevant spatial and time scales for hydrological or agronomical purposes from remote sensing data. Daily ET maps at kilometric spatial resolution were produced from MODIS data (Moderate Resolution Imaging Spectroradiometer on board of Terra and Aqua satellites) since 2000. Ground data and ET maps were used to evaluate the volume of evapotranspiration over the Crau aquifer. It represented a major term of the hydrological balance of the aquifer.

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\*Intervenant