

An Overview of the Regional Experiments for Land-atmosphere Exchanges 2012 (REFLEX 2012) Campaign

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A b s t r a c t

The REFLEX 2012 campaign was initiated as part of a training course on the organization of an airborne campaign to support advancement of the understanding of land-atmosphere interaction processes. This article describes the campaign, its objectives and observations, remote as well as *in situ*. The observations took place at the experimental Las Tie-sas farm in an agricultural area in the south of Spain. During the period of ten days, measurements were made to capture the main processes controlling the local and regional land-atmosphere exchanges. Apart from multi-temporal, multi-directional and multi-spatial space-borne and airborne observations, measurements of the local meteorology, energy fluxes, soil temperature profiles, soil moisture profiles, surface temperature, canopy structure as well as leaf-level measurements were carried out. Additional thermo-dynamical monitoring took place at selected sites.

After presenting the different types of measurements, some examples are given to illustrate the potential of the observations made.

Key words: land-atmosphere interaction, multi-scale heterogeneity, turbulence, calibration and validation, quantitative remote sensing.