

The 1993 La Londe Workshop: A Turning Point in Thermal Infrared Remote Sensing Research

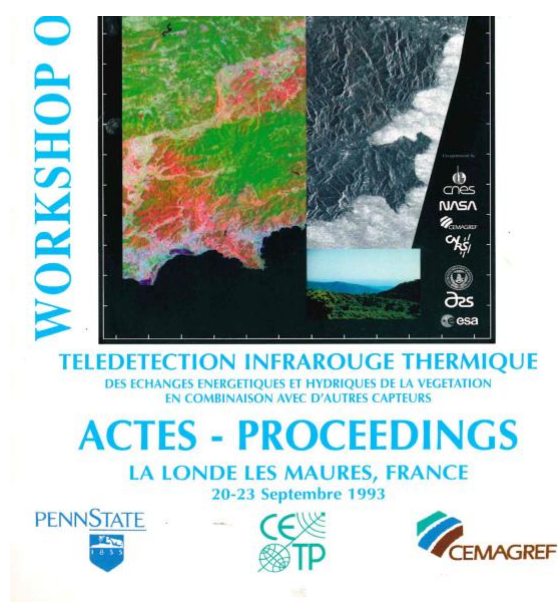
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The 1993 workshop on thermal remote sensing, held in La Londe les Maures in southern France, represented an important moment in the historical development of research using thermal infrared (TIR) observations to study land–atmosphere interactions. At the time, while part of the scientific community was recognizing the potential of land surface temperature (LST) measurements for understanding environmental processes at regional and global scales, another part of the scientific community was very pessimistic in the potential uses of TIR. The meeting was initiated for bringing together specialists in remote sensing, hydrology, meteorology, and environmental modeling to review the state of the art and identify the main scientific and technical challenges facing the field.

The workshop occurred during a period when TIR data from satellites such as Landsat and NOAA-AVHRR were becoming more widely available, yet their interpretation remained complex. Researchers were still refining methods to convert radiometric measurements into reliable estimates of LST, while accounting for atmospheric effects, surface emissivity, and sensor limitations.

One of the workshop's key contributions was to emphasize the role of TIR observations in estimating surface energy balance, evapotranspiration, soil moisture, and vegetation stress. By demonstrating that LST could serve as an indicator of water and energy exchanges between land and atmosphere, the meeting helped consolidate a research direction that remains fundamental today. Many of the modeling approaches discussed—particularly those linking thermal measurements with surface energy fluxes—laid conceptual foundations for later operational algorithms used in hydrology and climate science, as in particular setting on paper the basic concepts of the TSEB model and one of the first presentation of the contextual “triangle” method.



Another lasting impact of the workshop was its emphasis on interdisciplinary collaboration. Participants stressed that progress in TIR remote sensing required the integration of satellite data, field experiments, and numerical modeling. This perspective anticipated the collaborative frameworks that characterize current Earth observation programs and large-scale environmental monitoring projects. It also foreshadowed the development of new satellite missions designed specifically to improve TIR measurements.

From a historical standpoint, the 1993 workshop can therefore be seen as a formative moment in structuring the research agenda of TIR remote sensing. By clarifying methodological challenges and highlighting key scientific applications, it helped shape subsequent developments in satellite instrumentation, data processing techniques, and environmental modeling. Many contemporary studies of land-surface processes, water resources, and climate variability continue to rely on concepts and approaches that were actively discussed and consolidated during this early stage of the field's evolution.