



JRC Copernicus Climate Change Service (C3S) F4P platform.

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With the increasing number of Earth Observation satellites and derived land surface products, concerns of quality assurance led the Global Climate Observing System (GCOS) to establish accuracy criteria and standards. In this context, the Climate Change Copernicus Service (C3S) fitness-for-purpose (F4P) platform, developed at the Joint Research Centre, aims assessing the quality of land Essential Climate Variables (ECVs) in compliance with GCOS criteria.

In this paper, we first summarize the JRC C3S FP4 goals and secondly present the automatic review platform to assess multi-mission physical consistencies and physical coherence of and between various land products, at global and regional scales. We propose new metrics, such as Gamma Index and Triple Collocation Error Model, for multi-mission product inter-comparison and stability assessment, and resource selection statistical methods to assess physical coherence with other related ECV products. Examples concern the consistency of five global albedo products (GlobAlbedo, GLASS, MCD43C3, GIO and MISR), between 2000 And 2011, and their coherence with four burnt area products (MCD45A1, MCD64A1, Fire_CCI and GIO) for the overlapping period (2006 to 2008). Preliminary results show reasonable agreement with the inherent limitations of each product algorithm and sensor resolution.