Appendix B. Model outputs required – SENSITIVITY TESTS (April 2021)

NEW DATA IN RED

Find below a list of the magnitudes requested (in bold the name of the file, incuding the affiliation and the submission date). Please, use the following units: u, v, w and wind speed in m/s; wind direction in º; T in ºC ; q in g/kg; TKE in m²/s² ; surface fluxes in W/m²

1. **TIME_SERIES_GROUND_affiliation_date.ncd** :Time series (at 2m and 10m agl) in some selected locations (sites of the AWS from the SMC network) for the wind speed, direction, T, q and TKE every 30min covering all the length of the run. See the complete list with the coordinates of these sites and their location in Figure 4 and in the table at the end of this file.

2. Time series of vertical profiles in the main sites during LIAISE for the wind speed, direction, T, q and TKE every 30min covering all the length of the run. The locations of these sites are (lat,lon):

wet site: 41.69316, 0.92984 → **TIME_SERIES_PROFILE_WET_affiliation_date.ncdf**
dry site: 41.58963, 1.03011 → **TIME_SERIES_PROFILE_DRY_affiliation_date.ncdf**
IRTA: 41.61817, 0.87182 → **TIME_SERIES_PROFILE_IRTA_affiliation_date.ncdf**

3. Surface parameters (LAI, vegetation fraction, soil cover, albedo, **ROUGHNESS LENGTH (Z_0 AND Z_{OH})**) at the beginnig of the simulation.
   GROUND_affiliation_date.ncdf

   Besides, surface magnitudes (surface temperature, soil moisture and all the terms of the surface energy budget: RN, H, LE and G) every 30min covering all the length of the run. **SWI (soil wetness index) preferably than *soil moisture***
   SWI = (WG – Wwilt)/(Wfc-Wwilt)
   with WG=soil volumic water content (m3 m-3),
   Wwilt=wilting point volumic water content (m3 m-3) ,
   Wfc=field capacity volumic water content (m3 m-3).
   This index has no unit.
   GROUND_TIME_SERIES_affiliation_date.ncdf

4. Horizontal cross-section every 30min for u, v, w, T, q and TKE for the following levels (above the ground level): 1st model level, 10m, 50m, 100m, 200m, 500m, 1000m.
   HOR_CROSS_1stlevel_affiliation_date.ncdf
   HOR_CROSS_10m_affiliation_date.ncdf
   HOR_CROSS_100m_affiliation_date.ncdf
   HOR_CROSS_1000m_affiliation_date.ncdf