

Captions Supplemental Figures

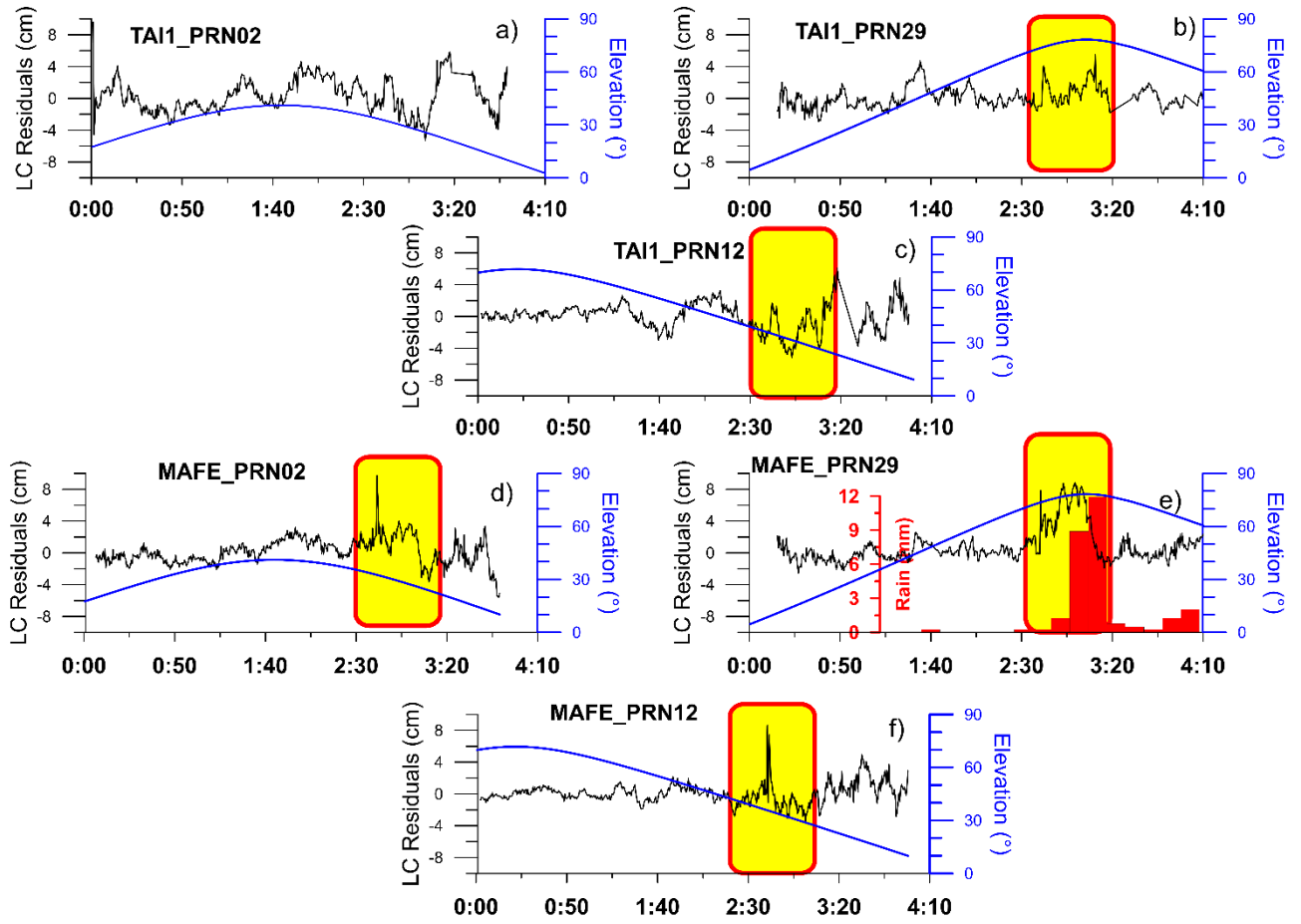


Figure S1. (26/09/2019) Temporal variation of the phase residuals of the iono-free LC component (black curve) and elevation above the horizon (blue curve) for different satellites (a-f) identified by their unique *PRN* code at TAI1 and MAFE stations. In the subplot e) the rainfall is even plotted (red bar charts); the yellow boxes highlight time intervals where the phase residuals are large despite the satellites orbit high on the horizon

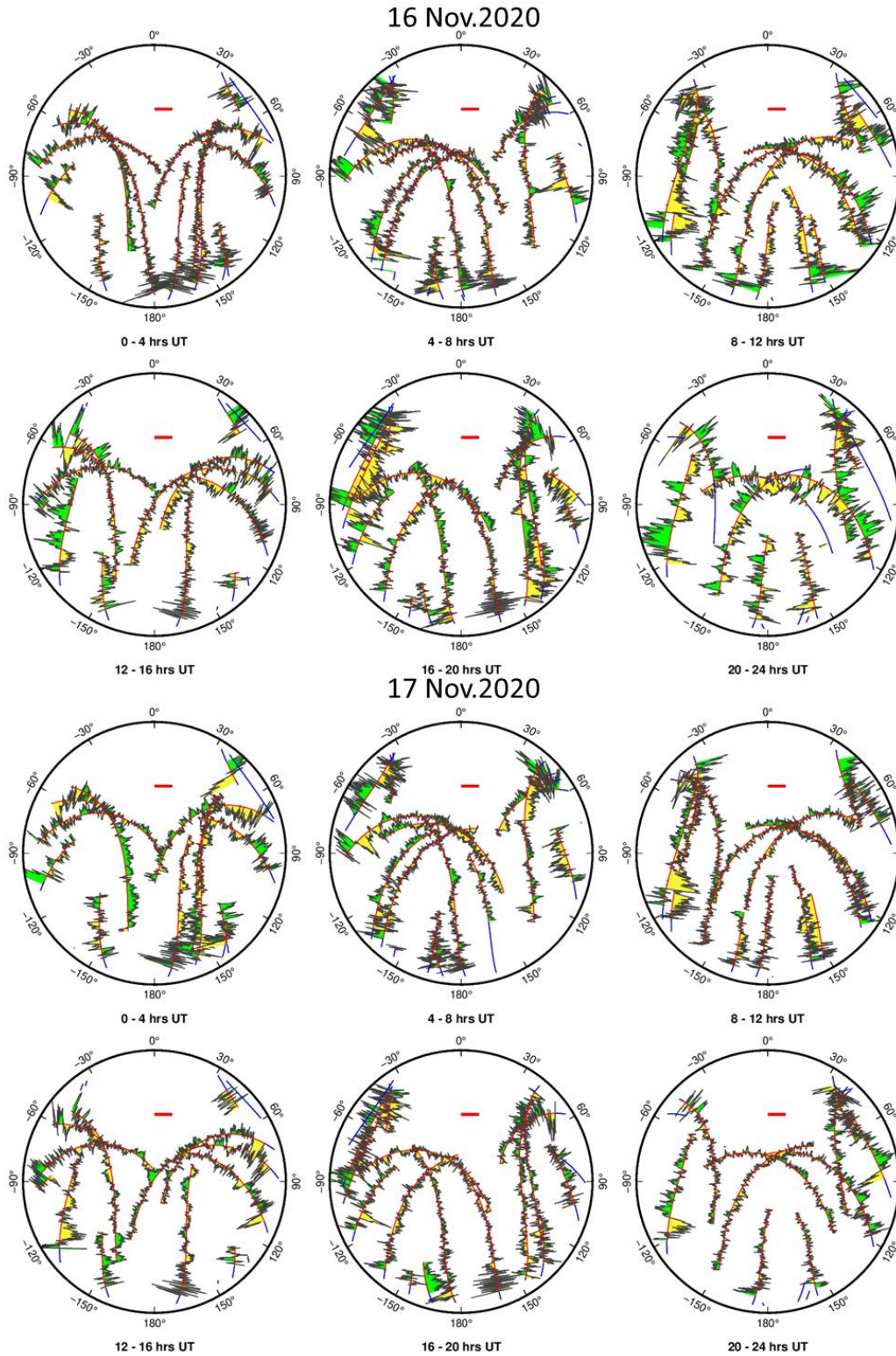


Figure S2. Four-hour snapshots of LC residuals (MAFE station) in topocentric coordinates for the days 16 & 17 November 2020: satellite paths in the sky above (red) and below (blue) the horizon, green and yellow paddings respectively indicate positive and negative residuals (sign is not important; it is just a visual aid); the thick red bar is a reference for 10 mm residual. Repeating high-frequency patterns indicate multipath; patterns that do not repeat (colored paddings) are due to water vapor.