**Review: "Instantaneous radiative forcings due to the first indirect effect linked to low-level liquid clouds in the Amazon"**

**Summary:** The manuscript has been substantially improved. However, I have a few remaining questions and comments, particularly regarding the methodology for calculating IRF using observations and radiative transfer models, as outlined below.

**Specific Comments:**

**Equation 10:** As shown in Equation 10, the calculation of IRF is highly dependent on cloud properties. What are the cloud properties during the reference days in terms of cloud liquid water path (LWP), cloud top and base heights, and cloud droplet number concentrations? According to Twomey effect theory, IRF should be estimated under conditions of constant LWP. How does LWP for low-level clouds vary over the course of the GoAmazon field campaign? Furthermore, how can constant cloud LWP be ensured when estimating IRF?

**Line 200-203 and Figure 3:** The motivation for deriving the LWC–r_eff relationship is unclear. The libRadtran radiative transfer model uses cloud properties as inputs to calculate top-of-atmosphere (TOA) irradiance. Lines 200–203 list LWC values, water density, r, N(D), and r_eff—are all of these required as inputs to the radiative transfer model? Additionally, why is the LWC–r_eff relationship used given that the Twomey effect assumes constant LWP? From Equation (4), the LWC–r_eff relationship is essentially determined by N(D). Therefore, fitting the LWC–r_eff data implies the use of a constant 'mean' N(D) for all days (i.e., one value per fitting line). As a result, the derived 'IRF' primarily reflects differences in cloud liquid water content between reference clean days and perturbed days under a constant 'mean' N(D) condition, rather than the IRF arising from the Twomey effect. Why not instead use the N_d–r_eff or AOD–r_eff relationship, which would be more consistent with the Twomey effect framework?

**Line 225-229:** The previous in situ aircraft measurements were conducted between August and September 1995, under conditions influenced by smoke and biomass-burning aerosols, whereas GoAmazon IOP1 took place from February 1 to March 31 under relatively clean conditions. Given these contrasting aerosol environments, why does the r_eff–LWC distribution from the previous in situ aircraft measurements more closely resemble that observed during GoAmazon IOP1 rather than IOP2?

**Line 230:** Why was r_eff calculated using LWC/N_d for IOP2? Why not apply a consistent calculation method for both IOP1 and IOP2? Additionally, were cumulus and stratocumulus clouds distinguished in this study? If not, which equation—Equation 7 or Equation 8—was used for the r_eff calculation?