

Interactive comment on “On the water thermal response to the passage of cold fronts: initial results for Itumbiara reservoir (Brazil)” by E. H. Alcântara et al.

E. H. Alcântara et al.

enner@dsr.inpe.br

Received and published: 20 June 2011

1. Referee #2: ... I think that the correct occurrence is that in Fig. 9.

Authors: We agree and we have changed as advised.

2. Referee #2: The authors mentioned some characteristics of the climate in the region of the Itumbiara reservoir (section 2.1). They must indicate the source for these data information.

Authors: The source was inserted.

C5386

3. Referee #2: In section 2.4 the authors mentioned that the terms in Equation 1 are defined as positive when directed into the water. However, in Equations 2, 4 and 5 the fluxes are positive when directed from the water to the air. So, in Equation 1 the net heat flux, i. e., the difference between the shortwave radiation and the other fluxes (longwave radiation, sensible and latent heat flux) is positive when directed to the water.

Authors: Exactly.

4. Referee #2: Section 3.3: The authors mentioned that “the increasing in the longwave radiation after the passage of the cold front is due to the cloud cover formation”. They used Equation 2 for the calculation of the longwave radiation flux. Where in this equation the effect of clouds is taken into account?

Authors: The term 'C' in equation 2 is the cloud cover fraction (estimated in accordance with Reed and Staben, 2002).

5. Referee #2: The English language must be improved. There are many grammar errors and some sentences make no sense.

Authors: Checked and corrected.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 9437, 2010.

C5387