Interactive comment on "Completeness of radiosonde humidity observations based on the IGRA" *by* António P. Ferreira et al.

Anonymous Referee #2

The manuscript examines the completeness of newly released IGRA V2 humidity data. It is useful to have such a documentation to help users decide whether IGRA V2 has enough data for their own research before putting more efforts into downloading and analyzing the data. I would also like to appraise the authors for making their results (data) available and plan to update it on a two-year basis. I am little bit surprised on why the authors only look at humidity data, not including temperature and wind data. In "Introduction", the authors did not provide the rationale for only studying humidity observations, such as less humidity data than temperature data and degraded performance for hygrometers. Based on my evaluation, I think that the manuscript in current version needs some revision. Some of specific comments are listed below. Specific comments: 1. P1 L16: spell out GUAN. 2. P2 L30, add some of new references, such

as Dai et al. (2011). Dai, A., J. Wang, P. W. Thorne, D. E. Parker, L. Haimberger, and X. L. Wang, 2011: A new approach to homogenize daily radiosonde humidity data J. Climate, 24, 965-991. This applies to other places in "Introduction". 3. P3, L4: Durre et al. (2018, JTECH) should be used for the IGRA V2 reference. 4. P4, L29: "although most of the soundings did not reach beyond 700 hPa", I think that this is outdated. Most of modern radiosonde soundings can reach above 700 hPa. 5. P7, L2: China doesn't use goldbeater skin anymore. Again, this info is outdated. 6. P13, L3: 500 hPa threshold might be too high for high elevation sites. I think that it would be 300 hPa. 7. Fig. 4: Is decreasing of radiosondes stations in 35-65N due to reducing number of radiosonde launches in Europe given the budget constrain?