Comment on tc-2021-46
Anonymous Referee #3

I spent a long time reading the first sections of the manuscript when I realized that this article should not have passed the Editor's initial screening. There are 16 figures but in fact most of the figures are multi-panel figures and I counted 72 individual graphs, some of them with multiple lines or symbols. That is too much information to analyze as a reviewer. The result section is a long description of these figures. I think that the authors should profoundly revise their manuscript to present a more concise assessment by cutting down some text and figures, and rework the design of the key figures.

Beyond that issues I still think that the study is useful and important. I am not able to provide a more detailed review because that would cost me a couple of extra hours of work. However, there is an important point that cast doubt on a significant part of the study:

About the Landsat data processing: "the 30 m FSC were resampled (nearest neighbor method) and projected to a geographic projection of 0.05° to identify FSC within a given AVHRR GAC pixel."

If this is actually done as written it means that a *single* Landsat pixel of 30 m resolution was assigned to the 0.05° pixel (about 5 km resolution), i.e. the pixel that is the nearest to the center of the AVHRR pixel. The source code was not provided so I could not check. The Landsat pixels should be resampled to AVHRR resolution using the area-weighted average of contributing pixels.