Comment on essd-2022-88
Anonymous Referee #1

Referee comment on "World Wide Lightning Location Network (WWLLN) Global Lightning Climatology (WGLC) and time series, 2022 update" by Jed O. Kaplan and Katie Hong-Kiu Lau, Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2022-88-RC1, 2022

Review of the manuscript “The WGLC global gridded lightning climatology and time series, 2022 update” by Kaplan and Lau.

General comments.

The manuscript presents an update of the WGLC global gridded lightning climatology and timeseries described by Kaplan and Lau (2021). In the present manuscript, the authors extend the prior dataset of lightning detected by WWLLN to include 2021 lightning observations. The methodology applied is the same as in the previous report were the hourly detection efficiency provided by the network was used to correct the raw data.

The study reports differences in the spatial patterns of lightning and in the lightning stroke power during 2021 respect to lightning activity over the eleven-year period between 2010-2020. Finally, the authors present a new climatological of the mean total annual lightning over the ten-year period 2012-2021.

The manuscript is well written and the presentation is well structured and clear. The figures are adequate and support the analysis and results presented on the study.

Therefore, I consider that the manuscript is ready for publication.