

## ***Interactive comment on “An investigation on the origin of regional spring time ozone episodes in the Western Mediterranean and Central Europe” by Pavlos Kalabokas et al.***

**Anonymous Referee #1**

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From my initial read of the text, this manuscript has the potential to be an interesting paper in ACP, but unfortunately the presentation of the figures is so poor that I am unable to evaluate the analysis. The authors will have to completely revise and condense their figures before I can make a recommendation to the editor.

This paper has 21 figures with a total of 133 panels, 90% of which are too small to be read. This is a result of the authors' poor formatting and visual display, coupled with ACPD's inadequate page layout which routinely makes figures far too small (I complain about this often). Any ACPD paper should be legible when printed onto paper, but for this paper, I can only make out the text in the figures by literally blowing up each panel on my laptop to 300% and then peering very hard to make sure I understand the highly

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pixelated text. I am not prepared to review a paper such as this when there are over 100 tiny panels.

I also find the figure production to be below the standards of the journal. The authors did not produce the figures of the meteorological fields. All they did was go to the website of the NOAA/ESRL Physical Sciences Division and use the web-based plotting tool to make figures using coarse resolution NCEP reanalyses. While the figures from this website are fine for discussion of a paper when it is in draft form, they are not adequate for ACPD. The text is far too small and the color schemes are terrible and very difficult to interpret. This website also produces the data for each plot in a simple text file that can be used by the authors to plot the figures in a more visually appealing and understandable format, but they chose not to do so. Why did the authors choose to use the NCEP 2.5 degree data to investigate regional scale transport patterns over the Mediterranean? As EU scientists these authors have free access to the superior ECMWF data, which are available at much higher resolution, far more appropriate to this regional scale study. The authors need to switch to ECMWF data and plot it with a resolution of at least 1 degree, preferably with a resolution of 0.5 degrees, if they are to properly understand the regional scale transport patterns. This is especially true for vertical velocity which is essentially useless at 2.5 degree resolution.

I have the same criticisms of the HYSPLIT trajectories. The figures were not produced by the authors but simply taken from the HYSPLIT interactive webpage. When they were pasted into the manuscript they were shrunk vertically so that the aspect ratio is all wrong. The authors need to get the trajectory data from the website and plot the trajectories in a legible format.

I have similar complaints about the rest of the figures, except for figures 1, 20 and 21.

When the authors revise their figures they also need to greatly reduce the number of panels. No one wants to sit down with a paper and read through over 130 panels.