

Answer to Reviewer 1

Thank you for the review and valuable suggestions.

The paper has been revised and recommendations have been considered.

The new title is now:

A 300-Year History of Understanding and Classifying Clouds, from a German Language Perspective.

The link to the actual international cloud atlas is included as well as all doi's which I could identify. Many of the references are accessible in digital form in large libraries like BSB, German Weather Service, LMU and others. Many of the references are available as digital version in large libraries but I do not know whether they allow to store copies as an annex of my MS on a HGSS-Server. The simplest way would be to ask me for titles of interest and I will check whether I can send these on a direct way.

Regarding the third suggestion I have mentioned the WIVERN project of ESA in the conclusions. In my view, a fractal description of cloud forms would currently be more trend-setting, however, relevant literature is scarce.

Answer to Reviewer 2

Thank you for the substantive suggestions and for identifying unclear formulations. I have incorporated the recommended changes in the revised manuscript. Where I could not agree, I explain the reasons below.

1. Length of the manuscript: The length has been reduced from 47 to 34 pages (8200 words).
2. Since the German literature was primarily evaluated I have changed the title to: “A 300-Year History of Understanding and Classifying Clouds, from a German Language Perspective.”
3. Some of the references have been deleted and a few new references in English have been included which are highlighted by mark-ups.
4. Some of the sections were given new headings. The old section “phantasy on clouds” has been reduced in size and integrated into the preliminary remarks.
5. All unclear or ambiguous wordings have been reworded. Typos have been eliminated. My focus is to emphasise the long way from a pure phenomenological view on cloud forms to a physical understanding. To underline this step, I took up a new section “Theoretical background and progress” where I mention the first adiabatic chart, facilitating the recognition of stability or instability and theoretical considerations induced thereof. Acronyms are now explained.
6. The number of footnotes has been reduced. They will be printed not as endnotes but will appear at the same side.
7. I did not discuss paintings in the manner of Constable. Properly doing so would require presenting comparable works by Goethe, Georg Dillis, Caspar David Friedrich, and others. I decided to include Mylius’s watercolours because, in 1917, Alfred Wegener and Wladimir Köppen planned a cloud atlas as they regarded contemporary photography as inadequate.
8. Following the recommendation, I now present a selection of cloud atlases in a table. The latest WMO cloud atlas (ed. 2018) is included and referenced as an online resource.
9. There is no known clear historical reason why Halley did not cite Guericke. Some later authors have suggested that Halley may not have been able to read Guericke’s *Experimenta nova*, which was written in Latin.
10. Figs. 6, 16, and 20 have been omitted. A new Fig. 12 has been added to illustrate how moist unstable layers are identified on an adiabatic chart and to conclude on the resulting cumulus cloud forms.
Figure 11 is one of the rare photographs showing a cloud layer that has clearly resolved along the course of a river. Douglas’s cloud photographs were a byproduct (as he mentioned), and he did not record a comparable interaction between orography and cloud cover.
Figure 20 has been reworded for clarity: it presents frequency distributions of observed cloud types by altitude and highlights the continuing difficulties, in 1924, of naming cloud types consistently.
Figure 23, showing PSC and NLC, is included because I was asked in advance to mention these cloud types and present illustrative images.
11. All meteorologists recognized the major advances brought by satellites; citing Wexlers statement alone would not reflect the broad professional acceptance of satellite observations.