

Interactive comment on “Return glider radiosonde for in-situ upper-air research measurements” by Andreas Kräuchi and Rolf Philipona

Anonymous Referee #2

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Comments to the authors:

The authors present a new glider radiosonde for in-situ measurements up to 24 km that is able to return to the launch location and can be easily reusable. I think the paper presents a novel idea to incorporate current technology for UAVs into upper atmosphere research.

The paper is well divided into the appropriate sections. However, there should be a clear indication in section 2 on which autonomous system was selected, something like a closing statement. In section 4, there should be a more descriptive details on the scientific instruments. Maybe include a table with all the instrumentation included in the glide, as a way of summary. Same idea in section 5, where all the different electronic components could be summarize on a table that include their main characteristics.

C1

Finally, I think that the manuscript should include a reference to the accompanied paper that discuss in more details the scientific results. The results shown in Figure 10 are completely lost in the manuscript and need to be highlighted somewhere else.

In general, I think the paper is well written and after the small changes should be ready for publication.

Review Points:

1. I think the paper should shown in Figure 3 the real RGR instead of just of the 3D drawing.
2. Units m/s should be replaced by m s^{-1} through the text and in Figures.
3. Figure 9: The legend should be relocated to another position within the Figure. I believe is blocking the text “circling” in the lower part.
4. Increase the font size of the legends in all Figures 8,9,10. It can not be easily readable.
5. Page 2, Line 23. Avoid the use of “very” in the manuscript, I think it is subjective. Same in Page 13, Line 14.
6. Include a the SERIAL COMMA. This a common mistake over the whole text. For example:
 - Page 2, Line 29. Comma after technology
 - Page 2, Line 30. Comma after difficult
 - Page 5, Line 13. Comma after weight
 - Page 5 Lines 4,5. The use of the serial comma could help for a better understanding of the idea.

C2

7. Page 2, Line 31: DOT after the areas.
8. Page 6, Line 16: explain more about the “next steps”
9. Page 8, Line 2: Include Switzerland after Payerne.
10. Page 10, Line 19. Remove one of the dots.
11. Page 10, Line 24-25. The GPS are used at the beginning of the document (Page 2, Line 29), but it is just defined here. I think it should be defined at the beginning and used the abbreviation here.
12. Page 13, Line 27. I think \times is missing after 4.

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2016-35, 2016.