

## ***Interactive comment on “Interpretation of Cluster WBD frequency conversion mode data” by J. S. Pickett et al.***

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Received and published: 17 October 2013

Review report on paper "Interpretation of Cluster WBD frequency conversion mode data" by J. S. Pickett, I. W. Christopher, and D. L. Kirchner submitted to Geoscientific Instrumentation, Methods and Data Systems.

The manuscript presents new results on calibrations and testing of the frequency down-converted waveforms of the Cluster Wide-Band Data (WBD) plasma wave receiver. These measurements are primarily intended to be used in the frequency domain. The authors attempt to extend the scope of these data sets into the time domain, to measure short-duration impulsive signals. They evaluate the way how to interpret the data using artificial test signals.

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The paper is well written and I have no doubts about its scientific quality. The results are presented very clearly. Additionally, these results are interesting for interpretation of the data of other instruments where the frequency down-conversion is used.

The authors took into account all the technical corrections which I suggested in the Access Review stage of the publication process. After reading the revised version published as a Discussion paper I only suggest a few additional minor technical corrections of the manuscript before it is (I hope) finally published in the final stage of this lengthy and complicated over-iterative review process.

Specific comments:

1. page 556, lines 21-23: units "(a.u.)" for amplitudes are missing
2. Caption of Fig 2: "January2010" -> missing space between January and 2010
3. References: As in my Access Review I still suggest the authors and the Editor to consider including the report of Swanner et al., 2006 as supplementary material published with this paper (or to publish it as a separate paper), and ensure thus its future accessibility. Swanner et al., 2006 is an important reference for this paper and it is currently published on two data archiving websites (on the University of Iowa site and on the ESA CAA site). It would make more sense to me if it becomes a part of the public literature.

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Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., 3, 547, 2013.

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