

Interactive comment on “VOCALS-CUpEx: the Chilean Upwelling Experiment” by R. D. Garreaud et al.

R. D. Garreaud et al.

rgarreau@dgf.uchile.cl

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Dr. Robert Weller Handling Editor VOCALS Special Issue Atmospheric Chemistry and Physics (ACP)

Dear Dr. Weller:

We have finished the Revised Version of the manuscript “VOCALS-CUpEx: The Chilean Upwelling Experiment” (acp-2010-784) submitted for publication in ACP. The revised version has been uploaded in ACP as supplement to this comment.

We have altered the text and some figures to reflect the comments of the two reviewers.

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The reviewer’s comments also helped us to correct several typographical, spelling and usage errors. The following pages contain a detailed reply to the comments of the reviewers, nearly all of them incorporated in the new version.

The new version has two major changes. First, following the comments from Dr. Clive Dorman, we added some context to our work by recognizing that the lower-troposphere and upper-ocean off north-central Chile exhibits the typical characteristics of the eastern boundary, subtropical upwelling systems (EBUS), and it is part of the “Humboldt” system along the west coast of South America (text and references added in the 1st paragraph of the introduction). We also recognize that CUpEx is one among several field experiment conducted in other EBUS, mainly along the west coast of North America. New Table 3 summarizes 11 field experiments, including target region, period and key reference.

The second change was adding new Fig. 13 (replacing original Fig. 15). This figure was constructed using data from a research flight conducted a few weeks ago over the bay of Tongoy, in which we clearly detected a strong, narrow wind maxima just north of point Lengua de Vaca. These observations give support to the existence of a near-coastal jet in this area, as depicted in Fig. 12, and it is now being subject to analysis using high-resolution atmos-ocean modelling. We also added a table (4) with the summary of the research flights in support of CUpEx.

We are confident that the new version will be more interesting and accessible to the readers of International ACP-VOCALS Special Issue.

I look forward to hearing from you,

Rene Garreaud

Please also note the supplement to this comment:

<http://www.atmos-chem-phys-discuss.net/10/C13029/2011/acpd-10-C13029-2011-supplement.pdf>

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