

Interactive comment on “Transport and outflow to the North Atlantic in the lower marine troposphere during ICARTT 2004” by S. R. Davis et al.

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Thanks for asking me to review your paper. After reading the paper through, I have the following suggestions:

1. In general, I would like to have seen a one- or two-paragraph synoptic meteorology discussion at the beginning of each of your case-study day descriptions. Talk about low- and mid-level flow, lows, highs, jets (low-level and upper tropospheric), sea and land breezes, total cloud cover, elevations of these clouds, fronts...that sort of thing. Also talk about variations in atmospheric stability (Brunt-Vaisala frequency, lapse rate, or some other parameter). This would help put the plume's downstream motion and vertical mixing behavior in context. Perhaps you could include a figure or two for each day that shows a synopsis of important meteorological features over the region. A

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GOES visible satellite photo of the Northeast region would also really help.

2. The remainder of my comments are minor editing affairs...

- a. In a few places you use "et al" instead of "et al." The latter is correct.
- b. Page 6, line 12: Change "water mixing ratio" to "water vapor mixing ratio" for clarity and consistency.
- c. Page 7, equation 3: Please state explicitly how you computed u' , v' and w' .
- d. Page 9, line 11: Please number this equation.
- e. Page 17, line 15: Change "result to" to "result of"

I hope this is of some use.

Thanks again.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 2395, 2012.