

Interactive comment on “Halogen Occultation Experiment (HALOE) and balloon-borne in situ measurements of methane in stratosphere and their relation to the quasi-biennial oscillation (QBO)” by P. K. Patra et al.

Anonymous Referee #2

Received and published: 16 April 2003

general comments The manuscript is interesting since it presents balloon measurements of methane and compares them with HALOE measurements. In addition, it presents a discussion of the effects of the QBO on transport and distributions of methane and ozone in the stratosphere.

specific comments While 31 references are included in the manuscript, dating only up to 2001, there are a number of additional papers that bear on the topics discussed. Provided here are additional references to consult and include if appropriate, including 11 from 2002 and 6 from 2001. There are places in the manuscript where statements are made without references. Some of the references provided here either substantiate

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or lead to a modification of those statements. While not all papers will be available to the authors, those that are accessible should be checked. In some cases, the authors of the present manuscript may have to contact the authors of the papers for copies. It would be interesting to review the manuscript again after information gleaned from these papers is included and a revised manuscript posted.

technical corrections None at present

Additional references to consult: Simulations of the quasi-biennial oscillation and its effect on stratospheric H₂O, CH₄, and age of air with an interactive two-dimensional model McCormack JP, Siskind DE JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES 107 (D22): art. no. 4625 NOV 2002

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