

## ***Interactive comment on “Three-dimensional model study of the arctic ozone loss in 2002/2003 and comparison with 1999/2000 and 2003/2004” by W. Feng et al.***

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The description of the 2002/03 Arctic winter (chapter 3) is not in accordance to the WMO definition of stratospheric warmings. I would not characterize this winter as a typical cold winter (see below)! Please change the description somehow in the following sense:

citation from:

Naujokat, B. und K. Grunow: The stratospheric Arctic winter 2002/03: Balloon flight planning by trajectory calculations, Proceedings of the 16th ESA Symposium on European Rocket and Balloon Programmes and Related Research, St.Gallen 2003 (ESA

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SP-530), 421-425, 2003.

"The winter 2002/03 once more demonstrated the large variability of the northern hemisphere stratosphere. ... It started extremely cold, a strong minor warming was observed in January (not expected after the two events in 2001/02), and two additional minor warmings occurred in February and in March. A late final warming started at the end of March and was completed in late April. All five warming periods..."

The Feng et al. winter 2002/03 description is irritating for ACPD readers as for example a new article was just submitted to ACPD with the title:

"Rapid meridional transport of tropical airmasses to the Arctic during the major stratospheric warming in January 2003" A. Kleinböhl, J. Kuttippurath, M. Sinnhuber, B. M. Sinnhuber, H. Küllmann, K. Kunzi, J. Notholt Page(s) 7121-7138. SRef-ID: 1680-7375/acpd/2004-4-7121

which is in contradiction to chapter 3 of Feng et al. "A stratospheric major sudden warming occurred in mid-February ...". Whether write "a major warming" or "a sudden warming" as it is commonly used in the literature, don't mix these two phrases up in one. A hardcopy of the Naujokat and Grunow (2003) paper can be requested by email.

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Interactive comment on Atmos. Chem. Phys. Discuss., 4, 5045, 2004.

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