

Appendix A5

A5.1 Implications of results

O₃, 40°N-60°N, 100 hPa for 2005-2010

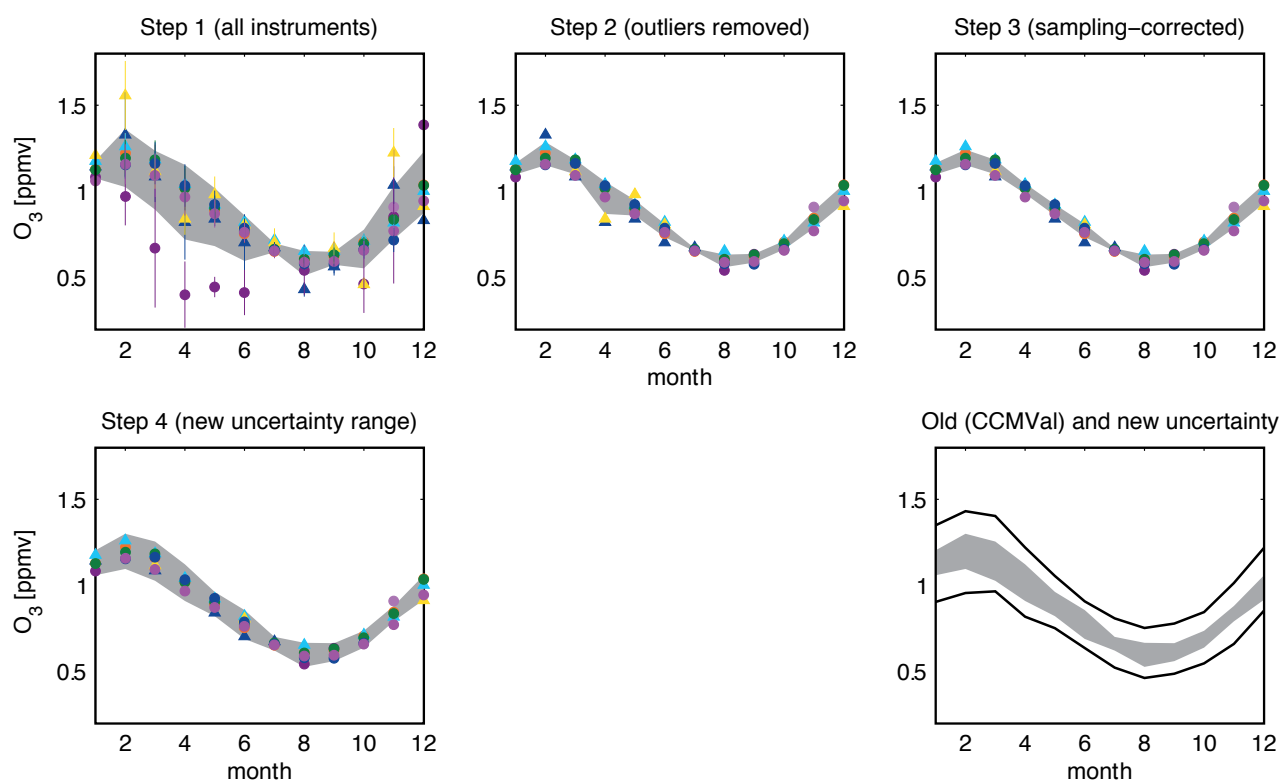


Figure A5.1.1: Ozone seasonal cycle diagnostic for 40°N-60°N at 100 hPa. The individual steps of deriving the ozone seasonal cycle diagnostic are shown. The uncertainty range (grey shading) is given for each month by the standard deviation over all multi-annual means of the selected data sets. In the uppermost left panel the vertical bars indicate the interannual spread of each instrument calculated as the standard deviations over all years. For the selection of the data sets, outliers and data points strongly impacted by sampling are removed as illustrated in steps 1 to 3. In step 4 the uncertainty due to interannual variations is added to the uncertainty range. In the lower rightmost panel the old uncertainty range given in the CCMVal report and the new uncertainty range are compared.

O₃, 40°S-60°S, 200 hPa for 2005-2010

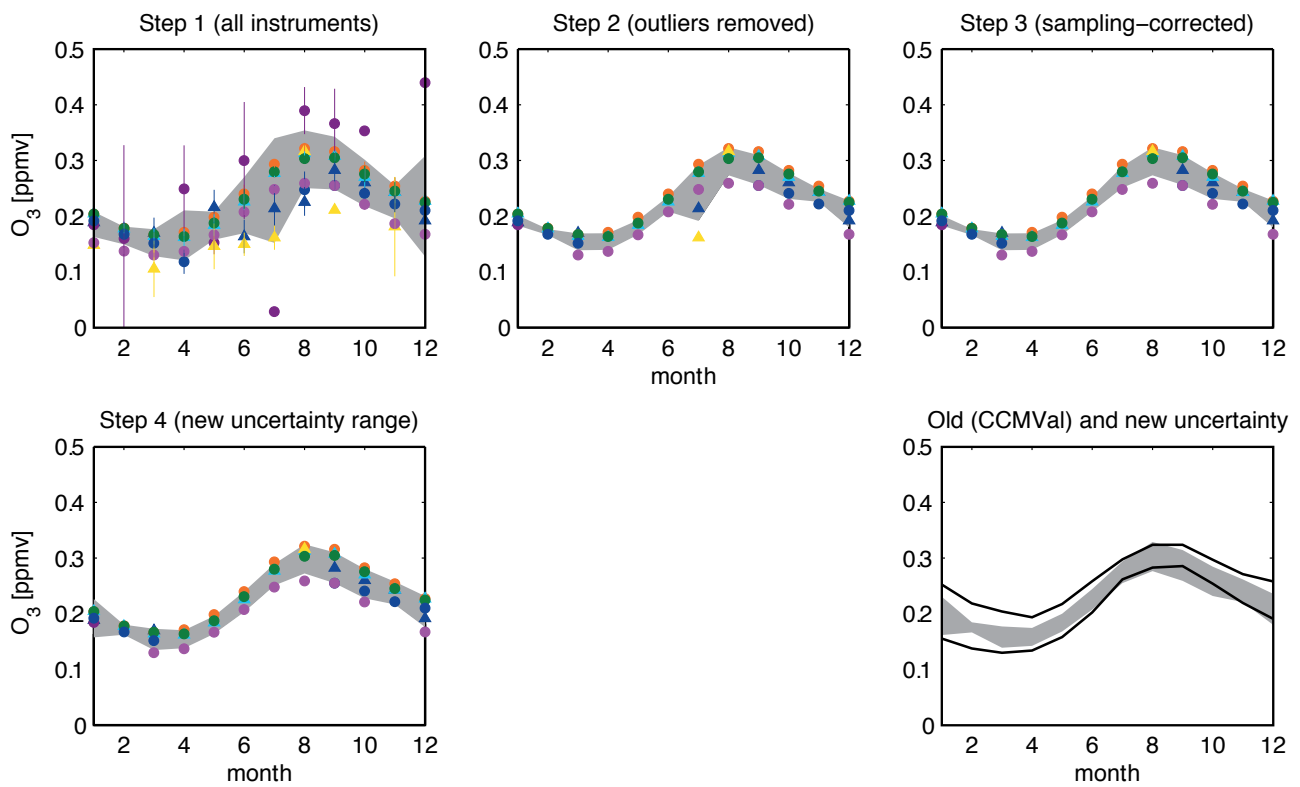


Figure A5.1.2: Ozone seasonal cycle diagnostic for 40°S-60°S at 200 hPa. As Figure A5.1.1 but for 40°S-60°S at 200 hPa.

O₃, 40°S-60°S, 100 hPa for 2005-2010

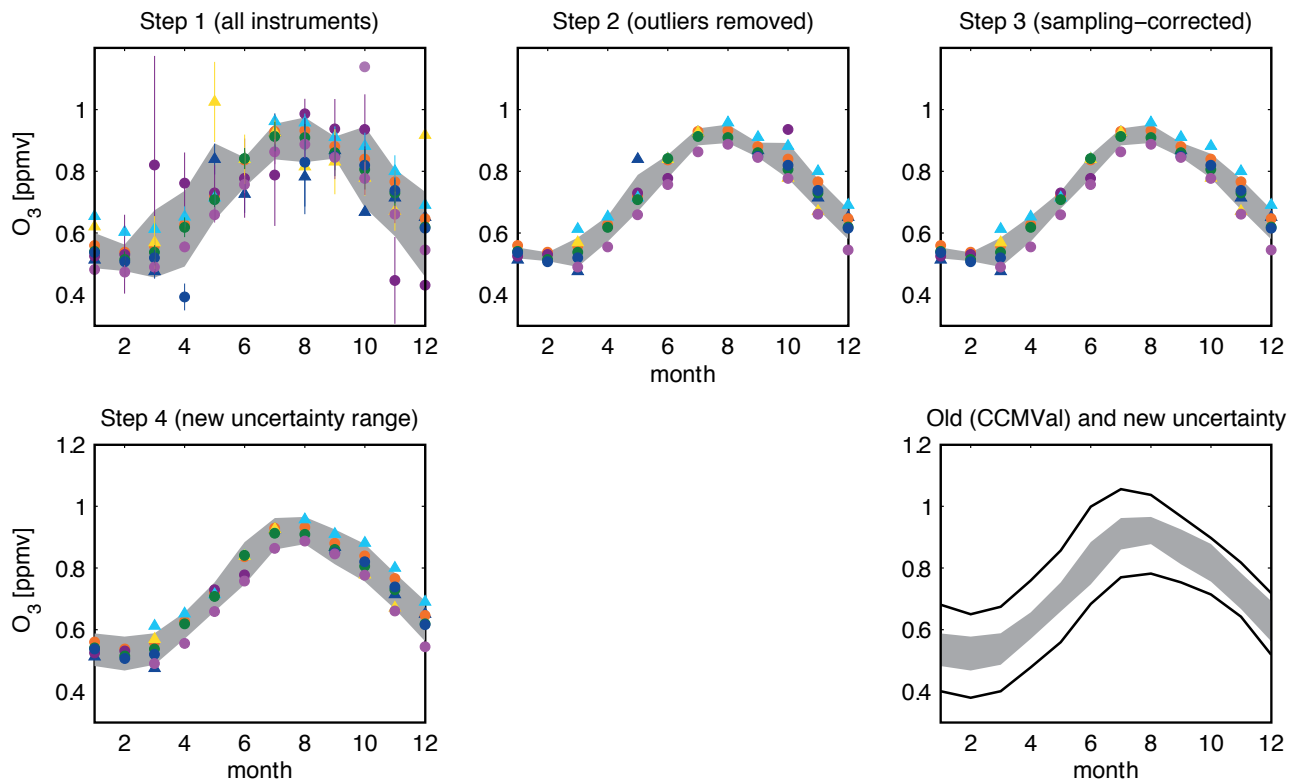
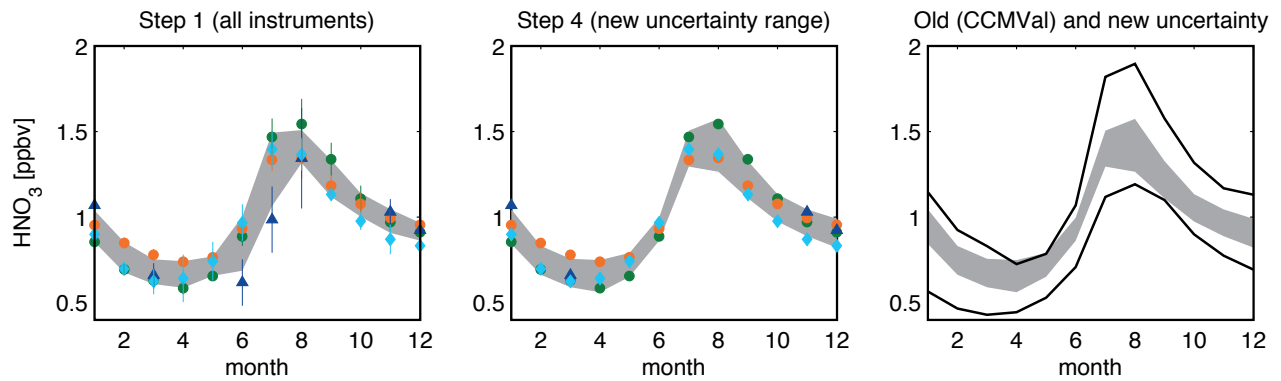


Figure A5.1.3: Ozone seasonal cycle diagnostic for 40°S-60°S at 100 hPa. As Figure A5.1.1 but for 40°S-60°S at 100 hPa.

HNO₃, 40°S-60°S, 200 hPa for 2005-2010



HNO₃, 40°S-60°S, 100 hPa for 2005-2010

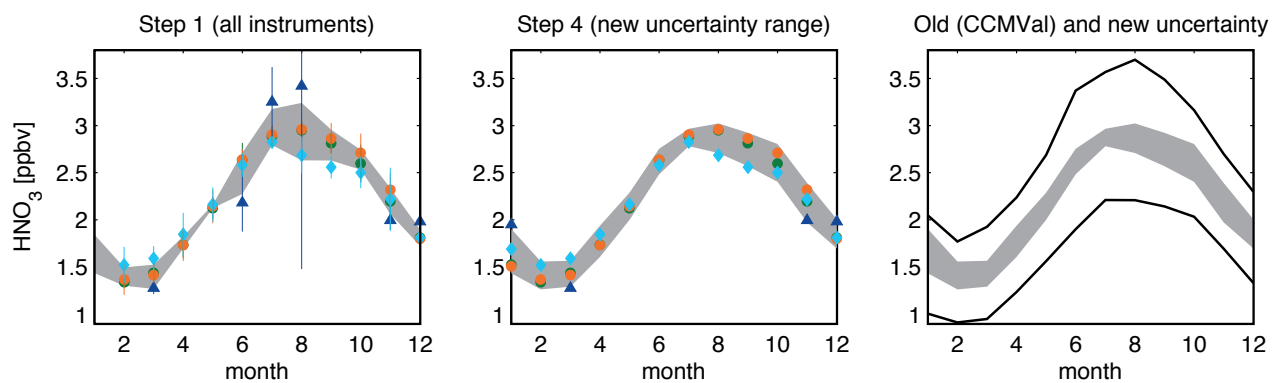


Figure A5.1.4: HNO₃ seasonal cycle diagnostic for 40°S-60°S at 200 and 100 hPa. Steps 1 and 4 of deriving the HNO₃ seasonal cycle diagnostic are shown. The uncertainty range (grey shading) is given for each month by the standard deviation over all selected data points. In the rightmost panels the old uncertainty range given in the CCMVal report and the new uncertainty range are compared.

O₃, 75°S-85°S, October 2005-2010

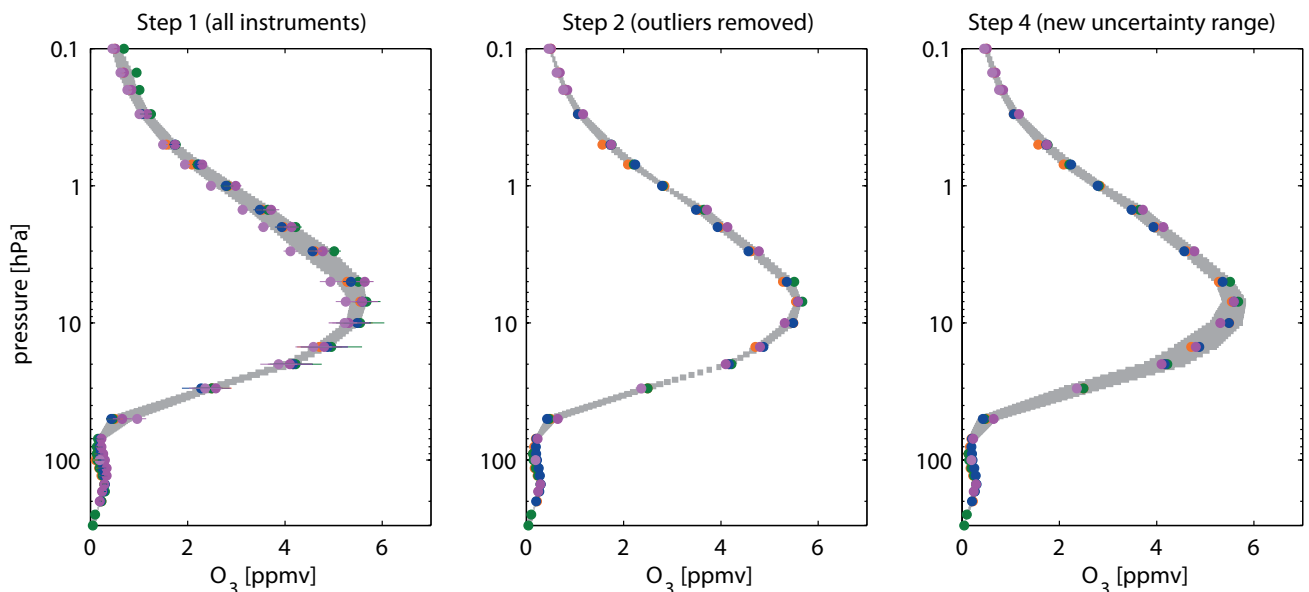


Figure A5.1.5: O₃ vertical profile for 75°S - 85°S in October 2005-2010. Steps 1, 2 and 4 of deriving the O₃ vertical profile diagnostic are shown. The uncertainty range (grey shading) is given for each level by the standard deviation over all selected data sets.

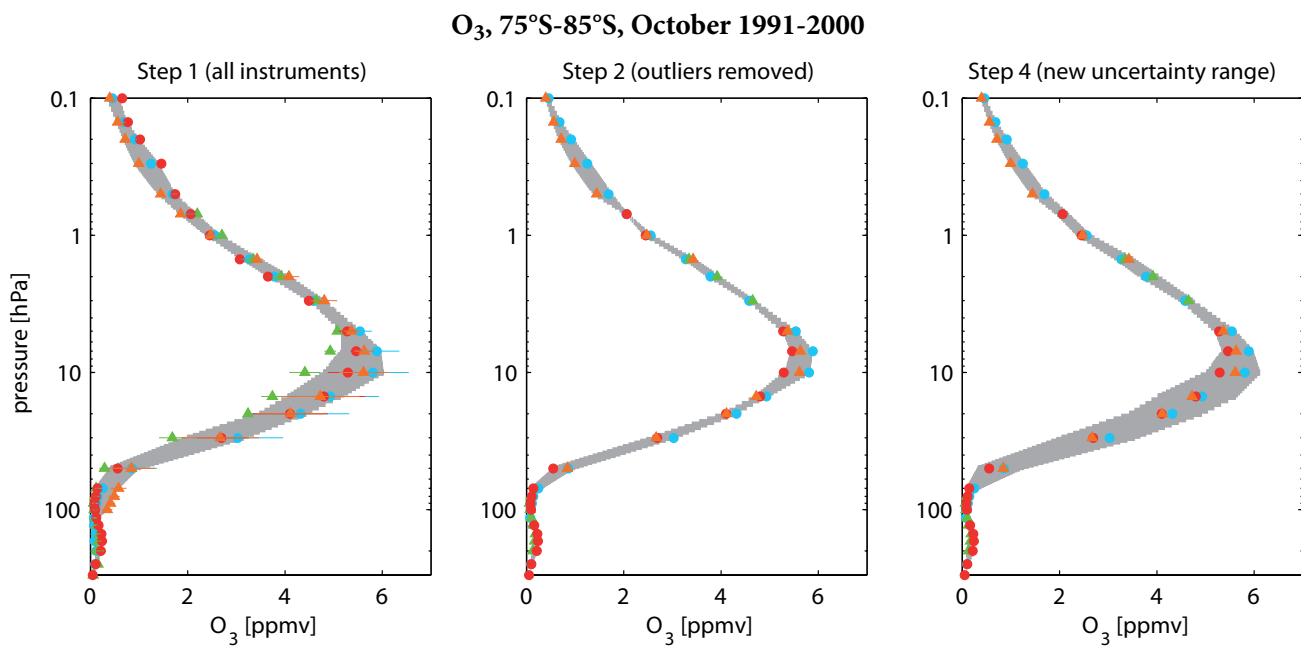


Figure A5.1.6: O₃ vertical profile for 75°S - 85°S in October 1991-2000. As Figure A5.1.5, but for 1991-2000. The uncertainty range (grey shading) is given for each level by the standard deviation over all selected data sets.