We thank the reviewer and the editor for the additional comments, which we answer below.

Editor comment:

In addition (to the reviewer comment), please add an explanation of the non-SI unit "ppt" to the captions of Tables 3 to 5 and Figures 3 to 9 (or change the axis labels), so that they can be understood on their own, when taken out of context and without reference to the main text.

We have added the following sentence from the main text to the captions of the Tables and Figures mentioned:

All values given here are mole fractions given in ppt, which is equivalent to pmol/mol.

Reviewer #2 comment:

The change in emphasis from the recovery date of ozone to the new method for calculating EESC is a good one and the inclusion of model comparisons also add to the robustness of the results. The authors have generally addressed all of my previous comments so I support publication with consideration of the additional specific comments below.

Specific comments (page numbers refer to the combined document with changes tracked):

Page 31, line 12: change “chemical” to “chemically” - *done*

Page 31, lines 18-25: I would be more specific when referring to the chemical lifetime here, and in general, as “local” or not. It’s clear enough that you mean local chemical lifetime in lines 17-18 but then in line 23 it’s not clear what you mean by “shorter lifetimes”.

Changed to ‘local lifetimes’ (l. 17-18) and to ‘shorter local lifetimes along the transport pathway’ in line 23.

Page 31, lines 27-28: “especially also of the” is awkward. I would suggest “…and on the path p it has taken, primarily the maximum path height (MPH), during transport.” – *changed as suggested*

Page 43, line 19: change “which is” to “which was”. “Output from this model run is available from the years 1960-2016.” - *changed*

Page 43, line 20: “as a function” - *changed*

Page 43, line 20: Why are the model NH fractional release factors so much higher than observed? Is this significant?

This is in principle not significant. It has been shown previously that the relation of inorganic chlorine to mean age (and thus fractional release) is very different from model to model (Waugh et al., 2007). The southern hemispheric values have been chosen, as the fractional release is much closer in TOMCAT here to observed fractional release in the Northern Hemisphere. By contrast the fractional release factors derived from EMAC are in very good agreement with observations.

Page 44, line 14: “on a fixed mean age level” - *changed*

Page 44, line 16: “the year 2000” - *changed*

Page 44, line 17: change “was” to “were” - *changed*

Page 44, line 22: You should explain further what you mean and why you expect ozone mixing ratios to “follow” a pressure surface rather than a mean age surface in the future. Presumably the model output can verify this?

What we wanted to state here, is that EESC is a reasonable proxy for the influence of halogens on ozone in the future. E statement about ozone rather following a pressure level was awkward. We have therefore rephrased this as follows:

The exact magnitude of changes in stratospheric dynamics is highly uncertain but it has been shown that ESC evaluated at pressure levels is a good proxy to describe the influence of halogens on the ozone column (Shepherd et al., 2014;Eyring et al., 2010). Based on the much better agreement of EESC with ESC at pressure levels, we conclude that EESC is a reasonable proxy for the effect of halogen loading on stratospheric ozone, given the overall high uncertainties associated to the future evolution of stratospheric dynamics.

Page 45, line 9: replace “he” with “the” - *changed*

Page 64, line 5: “The model simulation shown here used prescribed trace gas scenarios, sea surface temperatures and sea ice content.” - *changed*

Eyring, V., Cionni, I., Bodeker, G. E., Charlton-Perez, A. J., Kinnison, D. E., Scinocca, J. F., Waugh, D. W., Akiyoshi, H., Bekki, S., Chipperfield, M. P., Dameris, M., Dhomse, S., Frith, S. M., Garny, H., Gettelman, A., Kubin, A., Langematz, U., Mancini, E., Marchand, M., Nakamura, T., Oman, L. D., Pawson, S., Pitari, G., Plummer, D. A., Rozanov, E., Shepherd, T. G., Shibata, K., Tian, W., Braesicke, P., Hardiman, S. C., Lamarque, J. F., Morgenstern, O., Pyle, J. A., Smale, D., and Yamashita, Y.: Multi-model assessment of stratospheric ozone return dates and ozone recovery in CCMVal-2 models, Atmos. Chem. Phys., 10, 9451-9472, 10.5194/acp-10-9451-2010, 2010.
Shepherd, T. G., Plummer, D. A., Scinocca, J. F., Hegglin, M. I., Fioletov, V. E., Reader, M. C., Remsberg, E., von Clarmann, T., and Wang, H. J.: Reconciliation of halogen-induced ozone loss with the total-column ozone record, Nature Geosci, 7, 443-449, 10.1038/ngeo2155, 2014.
Waugh, D. W., Strahan, S. E., and Newman, P. A.: Sensitivity of stratospheric inorganic chlorine to differences in transport, Atmos. Chem. Phys., 7, 4935-4941, 10.5194/acp-7-4935-2007, 2007.