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# Development of GEM-strato with on-line chemistry - initial model validation

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We will report on the development and first applications of the chemical weather model based on the Canadian operational Global Environmental Multiscale (GEM) model. GEM-strato is run on 80 hybrid levels, with the model top at 0.1hPa, with on-line stratospheric gas phase and heterogeneous chemistry.

We will describe the main characteristics and features of the modeling system, Also, we will present results from model sensitivity studies and comparison with HALO, ACE-SCISAT-1, OSIRIS, and ground based observations.

In addition, we will present results illustrating model capability to run on a global variable resolution grid (0.22 deg) with zoomed domain over polar regions.