

Updates – Cloud and Benchmarking

- Continuing to work on moving GEOS-Chem testing to AWS
- New framework for registering GEOS-Chem tests – will facilitate collaborative testing by GCST

Benchmarking	Cannon	Compute1	AWS
GC-Classic X.Y	Manual	<i>todo</i>	<i>todo</i>
X.Y-alpha.A	<i>retired</i>	<i>todo</i>	Automatic
GCHP X.Y	Manual	<i>todo</i>	<i>todo</i>
X.Y-alpha.A	<i>retired (soon)</i>	Automatic	<i>todo</i>

Updates – Downloading GEOS-Chem Input Data

Data Portal: <http://geoschemdata.wustl.edu/>

- Serving a lot of data: 26 TB/week, ~320K files/week
- Average response time is 1.3 seconds, but intermittent periods were its much slower (>10x)

bashdatacatalog

- Will be release on Monday (February 28, 2021)
- GEOS-Chem X.Y version-specific catalog files (definitions of data collections used in that version)
- If geos-chem dry run were a bottom-up inventory, bashdatacatalog would be a top-down inventory
- Compatible with GC-Classic and GCHP
- Major effort to organize/index the input data collections (e.g., v13.2 had 84 collections)

New diagnostic in GCHP – Large-scale vertical motion (“UpwardsMassFlux”)

- Vertical component of the large-scale mass flux at the level edges
- Effectively, the convergence of the wind fields
- Units: $\text{kg m}^{-2} \text{s}^{-1}$

