

TCCON Data Use Policy and License

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The paper by Labzovskii et al examining the consistency of growth rates of CO₂ amongst different measurement datasets and models makes extensive use of data from the Total Carbon Column Observing Network (TCCON) as one of those measurement datasets. As noted by Anonymous Referee #1 (https://editor.copernicus.org/index.php/acp-2020-114-RC1.pdf?_mdl=msover_md&_jrl=10&_lcm=oc108lcm109w&_acm=get_comm_file&_ms=83680&c=177729&salt=1191195750866577302), the TCCON Data Use Policy requires that TCCON PIs whose data are used are contacted prior to submission of a manuscript. We note that since the oversight on this specific manuscript, we have been working with the authors to rectify the situation.

The TCCON partners would like to take this opportunity to remind data users of our Data Use Policy and License, and the importance of following similar protocols for other datasets. The important points are:

1. TCCON PIs must be contacted prior to publication or presentation. The contact details of the PIs are in the data file headers. Alternatively, an online form will soon be available, or requests can be emailed to tccon.ftir@gmail.com
2. Co-authorship may be requested, depending on the role of TCCON data and intellectual contribution.
3. TCCON datasets are assigned a digital object identifier (DOI). This must be cited along with any additional appropriate references.

The current Data Use Policy is available at https://tccon-wiki.caltech.edu/Network_Policy/Data_Use_Policy. Importantly, both this and the TCCON Data Archive (www.tccondat.org) refer users to the License in order to understand citation and data use requirements. The License is available as a plain text file with each TCCON data download. An example is included here for the entire TCCON dataset (all sites).

We are currently working to revise the TCCON Data Use Policy and License to make it clearer for data users; however, the general policy will remain unchanged.

1. Downloading and/or using the Data will indicate your acceptance to enter into this license agreement.
2. This license grants you a perpetual, royalty-free, non-exclusive and non-assignable license to use the Data subject to the terms and restrictions set forth herein.

25 3. You have the right to modify and improve on the Data and said modification or improvement will be proprietary to you. In consideration of the royalty-free and collaborative nature of this license agreement, however, you agree to keep the authors informed of the modification and improvement to the Data and hereby grant to TCCON a non-exclusive, unconditional, irrevocable, perpetual and royalty-free right and license to use your modifications or improvements with proper acknowledgement to you as the source.

30 4. All other rights, including redistribution, display, and publishing adaptations are reserved.

5. At a minimum of 10 weeks prior to publication or presentation of works that include TCCON data, you must contact the individuals listed on the DOI landing page via email and provide a description of the intended publication or presentation. If the TCCON partner makes a significant intellectual contribution to the research, or TCCON data from a site is essential to the work, co-authorship would normally be expected. This should be discussed at an early stage in the work. If the 35 individuals do not respond after 3 emails distributed over the 10 week period, the data are licensed under a cc-by 4.0 license.

6. All Data are assigned a digital object identifier (DOI). Use of these data to support a published work must include a citation that includes the data DOI. Use the standard citation format below, unless a different format is required for publication:

40 Goo, T.-Y., Y.-S. Oh, V. A. Velazco. 2014. TCCON data from Anmeyondo, South Korea, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.anmeyondo01.R0/1149284>

45 Deutscher, N., J. Notholt, J. Messerschmidt, C. Weinzierl, T. Warneke, C. Petri, P. Grupe, K. Katrynski. 2014. TCCON data from Bialystok, Poland, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <http://doi.org/10.14291/tccon.ggg2014.bialystok01.R1/1183984>

Notholt, J., C. Petri, T. Warneke, N. Deutscher, M. Buschmann, C. Weinzierl, R. Macatangay, P. Grupe. 2014. TCCON data from Bremen, Germany, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.bremen01.R0/1149275>

50 Griffith, D. W. T., N. Deutscher, V. A. Velazco, P. O. Wennberg, Y. Yavin, G. Keppel Aleks, R. Washenfelder, G. C. Toon, J.-F. Blavier, C. Murphy, N. Jones, G. Kettlewell, B. Connor, R. Macatangay, C. Roehl, M. Ryczek, J. Glowacki, T. Culgan, G. Bryant. 2014. TCCON data from Darwin, Australia, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <http://doi.org/10.14291/tccon.ggg2014.darwin01.R0/1149290>

- Iraci, L., J. Podolske, P. Hillyard, C. Roehl, P. O. Wennberg, J.-F. Blavier, J. Landeros, N. Allen, D. Wunch, J. Zavaleta, E. Quigley, G. Osterman, R. Albertson, K. Dunwoody, H. Boyden. 2016. TCCON data from Armstrong Flight Research Center, Edwards, CA, USA, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.edwards01.R1/1255068>
- Strong, K., J. Mendonca, D. Weaver, P. Fogal, J.R. Drummond, R. Batchelor, R. Lindenmaier. 2017. TCCON data from Eureka, Canada, Release GGG2014R2. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <http://doi.org/10.14291/tccon.ggg2014.eureka01.R2>
- Dubey, M., R. Lindenmaier, B. Henderson, D. Green, N. Allen, C. Roehl, J.-F. Blavier, Z. Butterfield, S. Love, J. Hamelmann, D. Wunch. 2014. TCCON data from Four Corners, NM, USA, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.fourcorners01.R0/1149272>
- Sussmann, R., M. Rettinger. 2014. TCCON data from Garmisch, Germany, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.garmisch01.R0/1149299>
- Iraci, L., J. Podolske, P. Hillyard, C. Roehl, P. O. Wennberg, J.-F. Blavier, J. Landeros, N. Allen, D. Wunch, J. Zavaleta, E. Quigley, G. Osterman, E. Barrow, J. Barney. 2016. TCCON data from Indianapolis, Indiana, USA, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.indianapolis01.R1/1330094>
- Blumenstock, T., F. Hase, M. Schneider, O.E. Garcia, E. Sepulveda. 2014. TCCON data from Izana, Tenerife, Spain, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.izana01.R1>
- Wennberg, P. O., D. Wunch, Y. Yavin, G. C. Toon, J.-F. Blavier, N. Allen, G. Keppel-Aleks. 2014. TCCON data from Jet Propulsion Laboratory, Pasadena, California, USA, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <http://doi.org/10.14291/tccon.ggg2014.jpl01.R0/1149163>
- Wennberg, P. O., C. Roehl, J.-F. Blavier, D. Wunch, J. Landeros, N. Allen. 2016. TCCON data from Jet Propulsion Laboratory, Pasadena, California, USA, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.jpl02.R1/1330096>
- Hase, F., T. Blumenstock, S. Dohe, J. Groß, M. Kiel. 2014. TCCON data from Karlsruhe, Germany, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.karlsruhe01.R1/1182416>

Wennberg, P. O., D. Wunch, C. Roehl, J.-F. Blavier, G. C. Toon, N. Allen, P. Dowell, K. Teske, C. Martin, J. Martin. 2016. TCCON data from Lamont, Oklahoma, USA, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tcccon.ggg2014.lamont01.R1/1255070>

Sherlock, V., B. Connor, J. Robinson, H. Shiona, D. Smale, D. Pollard. 2014. TCCON data from Lauder, New Zealand, 120HR, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tcccon.ggg2014.lauder01.R0/1149293>

Sherlock, V., B. Connor, J. Robinson, H. Shiona, D. Smale, D. Pollard. 2014. TCCON data from Lauder, New Zealand, 125HR, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tcccon.ggg2014.lauder02.R0/1149298>

Dubey, M., B. Henderson, D. Green, Z. Butterfield, G. Keppel-Aleks, N. Allen, J.-F. Blavier, C. Roehl, D. Wunch, R. Lindenmaier. 2014. TCCON data from Manaus, Brazil, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tcccon.ggg2014.manaus01.R0/1149274>

Warneke, T., J. Messerschmidt, J. Notholt, C. Weinzierl, N. Deutscher, C. Petri, P. Grupe, C. Vuillemin, F. Truong, M. Schmidt, M. Ramonet, E. Parmentier. 2014. TCCON data from Orleans, France, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tcccon.ggg2014.orleans01.R0/1149276>

Te, Y., P. Jeseck, C. Janssen. 2014. TCCON data from Paris, France, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tcccon.ggg2014.paris01.R0/1149279>

Wennberg, P. O., D. Wunch, C. Roehl , J.-F. Blavier, G. C. Toon, N. Allen. 2014. TCCON data from California Institute of Technology, Pasadena, California, USA, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tcccon.ggg2014.pasadena01.R1/1182415>

De Maziere, M., M. K. Sha, F. Desmet, C. Hermans, F. Scolas, N. Kumps, J.-M. Metzger, V. Duflot, J.-P. Cammas. 2014. TCCON data from Reunion Island (La Reunion), France, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tcccon.ggg2014.reunion01.R0/1149288>

Morino, I., N. Yokozeki, T. Matuzaki, A. Shishime. 2017. TCCON data from Rikubetsu, Hokkaido, Japan, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tcccon.ggg2014.rikubetsu01.R1/1242265>

Shiomi, K., Kawakami, S., H. Ohya, K. Arai, H. Okumura, C. Taura, T. Fukamachi, M. Sakashita. 2014. TCCON data from Saga, Japan, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tcccon.ggg2014.saga01.R0/1149283>

Kivi, R., P. Heikkinen, E. Kyro. 2014. TCCON data from Sodankyla, Finland, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.sodankyla01.R0/1149280>

Morino, I., T. Matsuzaki, A. Shishime. 2014. TCCON data from Tsukuba, Ibaraki, Japan, 125HR, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <http://doi.org/10.14291/tccon.ggg2014.tsukuba02.R1/1241486>

Griffith, D. W. T., V. A. Velazco, N. Deutscher, C. Murphy, N. Jones, S. Wilson, R. Macatangay, G. Kettlewell, R. R. Buchholz, M. Rigganbach. 2014. TCCON data from Wollongong, Australia, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.wollongong01.R0/1149291>

Wennberg, P. O., C. Roehl, D. Wunch, G. C. Toon, J.-F. Blavier, R. Washenfelder, G. Keppel-Aleks, N. Allen, J. Ayers. 2014. TCCON data from Park Falls, Wisconsin, USA, Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <http://doi.org/10.14291/tccon.ggg2014.parkfalls01.R1>

Feist, D. G., S. G. Arnold, N. John, M. C. Geibel. 2014. TCCON data from Ascension Island, Saint Helena, Ascension and Tristan da Cunha, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <http://doi.org/10.14291/tccon.ggg2014.ascension01.R0/1149285>

Wunch, D., J. Mendonca, O. Colebatch, N. Allen, J.-F. L. Blavier, S. Springett, D. Worthy, R. Kessler, K. Strong. 2017. TCCON data from East Trout Lake, Canada, Release GGG2014R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.easttroutlake01.R1>

Sussmann, R., M. Rettinger. 2018. TCCON data from Zugspitze (DE), Release GGG2014R1. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.zugspitze01.R1>

Notholt, J., T. Warneke, C. Petri, N.M. Deutscher, C. Weinzierl, M. Palm, M. Buschmann. 2017. TCCON data from Ny Ålesund, Spitsbergen (NO), Release GGG2014.R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.nyalesund01.R0/1149278>

Morino, I., V.A. Velazco, H. Akihiro, O. Uchino, D.W.T. Griffith. 2018. TCCON data from Burgos, Ilocos Norte (PH), Release GGG2014.R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.burgos01.R0>

Liu, C., W. Wang, Y. Sun, 2018. TCCON data from Hefei (PRC), Release GGG2014.R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.hefei01.r0>

Pollard, D. F., J. Robinson, H. Shiona. 2019. TCCON data from Lauder (NZ), Release GGG2014.R0. TCCON data archive, hosted by CaltechDATA, California Institute of Technology, Pasadena, CA, U.S.A. <https://doi.org/10.14291/tccon.ggg2014.lauder03.r0>

Failure to comply with the terms of this license will result in forfeit of the right to use this data until the issue is resolved to the satisfaction of the appropriate TCCON PIs.