
CURRICULUM VITAE

Lyatt Jaeglé

University of Washington
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RESEARCH INTERESTS

Atmospheric chemistry modeling; Global simulations of the long-range transport of air pollutants;
Surface emissions of trace gases and particulates; Biogeochemical cycling of mercury.

EDUCATION

- 1991-1996 California Institute of Technology, Department of Environmental Engineering Science. M.S. (1992) and Ph.D. (1996). Ph.D. dissertation title: “*Stratospheric Chlorine and Nitrogen Chemistry: Observations and Modeling*”. Advisors: Dr. Christopher Webster & Professor Yuk Yung
- 1989-1991 Ecole Centrale de Lille, Villeneuve d'Ascq, France. Diplôme d'Ingénieur (1992)
- 1987-1989 Lycée Chaptal, Paris, France. Mathématiques Supérieures and Spéciales

EMPLOYMENT

- 2000-present Full Professor (2011-present), Associate Professor (2006-2011), and Assistant Professor (2000-2006), Department of Atmospheric Sciences, University of Washington
- 2009-2010 Invited Professor, Environmental Engineering Institute, Ecole Polytechnique Fédérale de Lausanne, Switzerland
- 1996-2000 Research Associate (1999-2000) and Postdoctoral Fellow (1996-1999), Department of Earth and Planetary Sciences, Harvard University. Advisor: Professor Daniel Jacob
- 1991-1996 Graduate Research Assistant, California Institute of Technology. Advisors: Professor Yuk Yung and Dr. Chris Webster

AWARDS

- NSF Faculty Early Career Development (CAREER) Award (2003-2008)
- NASA New Investigator Award (2001-2004)
- Editor's Citation for Excellence in Refereeing, Journal of Geophysical Research – Atmospheres (2003)
- University of Washington ADVANCE professor (2002)
- NASA Group Achievement Awards: INTEX-B (2006), INTEX-A (2004), 1998 (SONEX), 1995 (ASHOE/MAESA), 1994 (SPADE)
- Bourse Lavoisier (1991-92), fellowship from the French Ministry of Foreign Affairs

PROFESSIONAL OFFICES AND SERVICE

- Science team member for the following aircraft missions: WINTER (2015), NOMADSS (2013), ARCTAS (2008), INTEX-B (2006), INTEX-A (2004), ITCT-2K2 (2002), SONEX (1997), SUCCESS (1996), ASHOE/MAESA (1994), SPADE (1992)
- Advisory Board, Atmospheric Chemistry Laboratory, National Center for Atmospheric Research (NCAR), 2015-2018
- Executive editor, GeoResJ (2013-2015)

Editorial advisory board for Atmospheric Environment (2006-2010)
Reviewer for Journal of Geophysical Research, Geophysical Research Letters, Science, Atmospheric Environment, Atmospheric Chemistry and Physics, Journal of Atmospheric Sciences, Chemical Reviews, Proceedings of the National Academy of Sciences
GEOS-Chem Steering Committee member and co-chair of the emissions working group (2022-present)
GEOS-Chem Steering Committee member and chair of the mercury and persistent organic pollutants working group (2010-2013)
Participant in the UNEP Global Partnership of Atmospheric Mercury Transport and Fate Research (2008)
Proposal reviewer for National Aeronautics and Space Administration, National Science Foundation, National Oceanic and Atmospheric Administration. NSF review panel (2004). NASA review panels (2008, 2011, 2014, 2015).
Member of the NASA Earth Science Senior Review for the Mission Extension of Earth Science Operating Missions (2015 and 2017)
Outreach: participated in Geophysical Information for Teachers (GIFT) Workshop on “Vie avec une étoile: Interactions Soleil-Terre”, AGU-CGU Joint Assembly, Montréal, May 2004.
Co-organizer for the Atmospheric Chemistry workshop in Telluride, 2002.

UW COMMITTEES AND DUTIES

Departmental committees:

Associate Chair (2022-present); Undergraduate Program Coordinator (2022-present); Undergraduate Fellowship Committee (2022-present); Undergraduate Curriculum Committee (2022-present); Faculty search committee (2019-2020); Faculty salary committee (2018-present); Committee on Graduate Studies (2017-2020); Graduate Program Coordinator (2010-2017); Faculty search committee for Regional Climate Modeling position (2016); Chair of Committee on Graduate Studies (2006-2009); Committee on Graduate Studies, member (2003-2006); Graduate Curriculum Committee (2002-2010); Computer Committee (2003-2004); Strategic Planning Committee (2003-2004); Search Committee for Atmospheric Chemistry faculty position (2003); Department web site committee (2002).

University committees:

Faculty Senate (2019-2021); College of the Environment College Council (2017-2020); Search Committee, Atmospheric Sciences faculty position (2017); Search committee for Environmental and Occupational Health Sciences faculty positions (2013); Senior Fellow, Joint Institute for the Study of the Atmosphere and Oceans (JISAO) (2004-present); Faculty Senate Representative (2008-2009); Program on Climate Change (PCC) board member (2003-2007); Mentor in Women in Science and Engineering (WISE) program (2004-2009); Search committee for Chair of Applied Mathematics Department (2007); PCC/JISAO postdoc selection committee (2004); Steering committee for the Global Environmental Chemistry Program (2002-2004); Panel member in the 17th Annual Women in Science and Engineering Conference (2008): “Science in a Real World: Making Life Better”; Panel member for “ADVANCE Assistant Professors Workshop: Applying for an NSF CAREER Grant” (2005). Panel member in UW’s Future Faculty Fellows Workshop (2007).

TEACHING

Graduate courses:

Atmospheric Chemistry Modeling (ATM S 565); Atmospheric Chemistry (ATM S 558); The Global Carbon Cycle and Greenhouse gases (ATM S/OCN/ESS 588); Fundamentals of Physics and Chemistry of the Atmosphere (ATM S 501)

Undergraduate courses:

Global Warming (ATM S 111); Climate and Climate Change (ATM S 211); Air Pollution (ATM S 212); Fundamentals of Atmospheric Chemistry (ATM S 358); Global Atmospheric Chemistry (ATM S 458)

GRADUATE STUDENTS SUPERVISED AS CHAIR

Students supervised as chair:

- Linda Steinberger (M.S. 2004) “Using space-based observations of nitrogen dioxide and formaldehyde to map biomass burning emissions of NO_x and VOCs over Africa”
- Qing Liang (Ph.D. 2006) “Long-range transport of Asian pollution to North America: Mechanisms, chemistry and variability”
- Sarah Strode (Ph.D. 2008) “Mercury in the atmosphere and ocean: sources, transport, and global impact”
- Yurong Luan (M.S. 2011) “Variability in Long-range Transport of Aerosols from East Asia and North America”
- Maurizio Di Pierro (Ph.D. 2013) “Satellite observations of the spatial and seasonal distribution of Arctic aerosols”
- Yanxu Zhang (Ph.D. 2013) “Biogeochemical Cycling of Mercury in the Atmosphere-Ocean System: Global and Regional Modeling”
- Viral Shah (Ph.D. 2018) “Sources, sinks and chemistry of aerosols and mercury over the United States”
- Kelsey Larson (M.S. 2018) “Investigating the Sources of Anthropogenic Wintertime Pollutants in the northeast United States with a Lagrangian Dispersion Model”
- Jiayue Huang (Ph.D. 2018) “Sea ice sources of sea salt aerosols in polar regions”
- Jessica Haskins (Ph.D. 2020) “Observational constraints on tropospheric chlorine cycling”, co-advised with Prof. Joel Thornton
- Kaitlyn Confer (M.S. 2022) “Impact of changing Arctic sea ice extent, sea ice age, and snow depth on sea salt aerosol from blowing snow and the open ocean for 1980-2017”
- Joseph Robinson (Ph.D. 2019-present)
- Racine Nassau (M.S., 2021-present)
- Chris Wright (M.S., 2021-present), co-advised with Prof. Joel Thornton

PEER-REVIEWED PUBLICATIONS (the principal author is the first author)

(*Web of Science*: h-index = 46; Total number of citations = 6,444; Average citations per item = 65; *Google Scholar*: h-index = 56; Total number of citations = 9,820)

(⊕ indicates a paper by a student or postdoc advised by L. Jaeglé)

1. Zhai, S., W. Swanson, J.R. McConnell, N. Chellman, T. Opel, M. Sigl, H. Meyer, X. Wang, L. Jaeglé, J. Stutz, J. Dibb, K. Fujita, and B. Alexander, Implications of Snowpack Reactive Bromine Production for Arctic Ice Core Bromine Preservation, in review *J. Geophys. Res. – Atmospheres*, **2023**.
2. ⊕Chan, Y.C., Jaeglé, L., Campuzano-Jost, P., Catling, D. C., Cole-Dai, J., Furdui, V. I., Jackson, W. A., Jimenez, J. L., Kim, D., Wedum, A. E., Alexander, B., Stratospheric gas-phase production alone cannot explain observations of atmospheric perchlorate on Earth, *Geophys. Res. Lett.*, **50**, e2023GL102745. <https://doi.org/10.1029/2023GL102745>, **2023**.
3. ⊕Robinson, J., Jaeglé, L., and Oman, L. D., The role of midlatitude cyclones in the emission, transport, production, and removal of aerosols in the northern hemisphere, *Journal of Geophysical Research: Atmospheres*, **128**, e2022JD038131. <https://doi.org/10.1029/2022JD038131>, **2023**.
4. ⊕Confer, K. L., Jaeglé, L., Liston, G. E., Sharma, S., Nandan, V., Yackel, J., et al., Impact of changing Arctic sea ice extent, sea ice age, and snow depth on sea salt aerosol from blowing snow

- and the open ocean for 1980–2017. *Journal of Geophysical Research: Atmospheres*, 128, e2022JD037667. <https://doi.org/10.1029/2022JD037667>, 2023.
5. Xu, R., Thornton, J. A., Lee, B. H., Zhang, Y., **Jaeglé, L.**, Lopez-Hilfiker, F. D., Rantala, P., and Petäjä, T., Global simulations of monoterpene-derived peroxy radical fates and the distributions of highly oxygenated organic molecules (HOM) and accretion products, *Atmos. Chem. Phys.*, 22, 5477–5494, <https://doi.org/10.5194/acp-22-5477-2022>, 2022.
 6. Swanson, W. F., Holmes, C. D., Simpson, W. R., Confer, K., Marelle, L., Thomas, J. L., **Jaeglé, L.**, Alexander, B., Zhai, S., Chen, Q., Wang, X., and Sherwen, T.: Comparison of model and ground observations finds snowpack and blowing snow aerosols both contribute to Arctic tropospheric reactive bromine, *Atmos. Chem. Phys.*, 22, 14467–14488, <https://doi.org/10.5194/acp-22-14467-2022>, 2022.
 7. McDuffie, E. E., Martin, R. V., Spadaro, J., Burnett, R., Smith, S. J., O'Rourke, P., Hammer, M., van Donkelaar, A., Bindle, L., Shah, V., **Jaeglé, L.**, Lui, G., Yu, F., Adeniran, J., Lin, J., Brauer, M. Fuel and Sector contributions to ambient PM_{2.5} and its disease burden across multiple spatial scales, *Nat Commun.*, 12, 3594, <https://doi.org/10.1038/s41467-021-23853-y>, 2021.
 8. Chan, Y.-C., Evans, M.J., He, P., Holmes, C. D., **Jaeglé, L.**, Kasibhatla, P., Liu, X.-Y., Sherwen, T., Thornton, J.A., Wang, X., Xie, Z., Zhai, S., Alexander, B. Heterogeneous nitrate production mechanisms in intense haze events in North China, *J. Geophys. Res.*, 126, e2021JD034688. <https://doi.org/10.1029/2021JD034688>, 2021.
 9. Winski, D. A., Osterberg, E. C., Kreutz, K. J., Ferris, D. G., Cole-Dai, J., Thundercloud, Z., Huang, J., Alexander, B., **Jaeglé, L.**, Kennedy, J. A., Larrick, C., Kahle, E. C., Steig, E. J., Jones, T. R. Seasonally resolved Holocene sea ice variability inferred from South Pole ice core chemistry. *Geophys. Res. Lett.*, 48, e2020GL091602. <https://doi.org/10.1029/2020GL091602>, 2021.
 10. Ishino, S., Hattori, S., Legrand, M., Chen, Q., Alexander, B., Shao, J., Huang, J., **Jaeglé, L.**, Jourdain, B., Preunkert, S., Yamada, A., Yoshida, N., Savarino, J. Regional characteristics of atmospheric sulfate formation in East Antarctica imprinted on ¹⁷O-excess signature, *J. Geophys. Res.*, 126, e2020JD033583. <https://doi.org/10.1029/2020JD033583>, 2021.
 11. Green, J., Bililign, S., Fiddler, M., Fibiger, D., McDuffie, E., Aquino, J., Campos, T., Shah, V., **Jaeglé, L.**, Thornton, J., DiGangi, J., Wolfe, G., Brown, S.S. Wintertime formaldehyde: Airborne observations and source apportionment over the Eastern United States, *J. Geophys. Res.*, e2020JD033518. <https://doi.org/10.1029/2020JD033518>, 2021.
 12. Haskins, J. D., **Jaeglé, L.**, & Thornton, J. A. Significant decrease in wet deposition of anthropogenic chloride across the eastern United States, 1998–2018. *Geophys. Res. Lett.*, 47, e2020GL090195. <https://doi.org/10.1029/2020GL090195>, 2020.
 13. Huang, J., **Jaeglé, L.**, Chen, Q., Alexander, B., Sherwen, T., Evans, M. J., Theys, N., and Choi, S., Evaluating the impact of blowing snow sea salt aerosol on springtime BrO and O₃ in the Arctic, *Atmos. Chem. Phys.*, 20, 7335–7358, <https://doi.org/10.5194/acp-20-7335-2020>, 2020.
 14. Weng, H., Lin, J., Martin, R., Millet, D., **Jaeglé, L.**, Ridley, D., Keller, C., Li, C., Du, M., and Meng, J., Global high-resolution emissions of soil NO_x, sea salt aerosols, and biogenic VOCs, *Scientific Data*, *Sci Data* 7, 148. <https://doi.org/10.1038/s41597-020-0488-5>, 2020.
 15. Horowitz, H. M., Holmes, C., Wright, A., Sherwen, T., Wang, X., Evans, M., Huang, J., **Jaeglé, L.**, Chen, Q., Zhai, S., and Alexander, B. Effects of sea salt aerosol emissions for marine cloud brightening on atmospheric chemistry: Implications for radiative forcing. *Geophys. Res. Lett.*, 47, e2019GL085838. <https://doi.org/10.1029/2019GL085838>, 2020.
 16. Haskins, J., Lee, B., Lopez-Hilfiker, F., Peng, Q., **Jaeglé, L.**, Reeves, M., Schroder, J., Campuzano-Jost, P., Fibiger, E., Jimenez, J., Brown, S., Thornton, J., Observational constraints on the formation of Cl₂ from the reactive uptake of ClNO₂ on aerosols in the polluted marine boundary layer. *J. Geophys. Res.-Atmos.*, 124, 8851–8869,

- <https://doi.org/10.1029/2019JD030627>, 2019.
17. Haskins, J. D., Lopez-Hilfiker, F. D., Thornton, J. A., **Jaeglé, L.**, Shah, V., Lee, B. H., Campuzano-Jost, P., Schroder, J. C., Day, D. A., Guo, H., Sullivan, A. P., Weber, R., Dibb, J., Campos, T., Jimenez, J. L., and Brown, S. S., Anthropogenic control on wintertime oxidation of atmospheric pollutants. *Geophys. Res. Lett.*, 46, 14826–14835. <https://doi.org/10.1029/2019GL085498>, 2019.
 18. Green, J. R., Fiddler, M. N., Holloway, J. S., Fibiger, D. L., McDuffie, E. E., Campuzano-Jost, P., Schroder, J. C., Jimenez, J. L., Weinheimer, A. J., Aquino, J., Montzka, D. D., Hall, S. R., Ullman, K., Shah, V., **Jaeglé, L.**, Thornton, J. A., Bililign, S., Brown, S. S., Rates of Wintertime Atmospheric SO₂ Oxidation based on Aircraft Observations during Clear Sky Conditions over the Eastern U.S., *J. Geophys. Res.-Atmos.*, 124, 6630–6649. <https://doi.org/10.1029/2018JD030086>, 2019.
 19. Shah, V., **Jaeglé, L.**, Jimenez, J. L., Schroder, J. C., Campuzano-Jost, P., Campos, T. L., Reeves, J. M., Stell, M., Brown, S. S., Lee, B. H., Lopez-Hilfiker, F. D., Thornton, J. A. Widespread pollution from secondary sources of organic aerosols during winter in the northeastern United States. *Geophysical Res. Lett.*, 46, 2974–2983. <https://doi.org/10.1029/2018GL081530>, 2019.
 20. Sullivan, A. P., Guo, H., Schroder, J. C., Campuzano-Jost, P., Jimenez, J. L., Campos, T., Shah, V., **Jaeglé, L.**, Lee, B. H., Lopez-Hilfiker, F. D., Thornton, J. A., Brown, S. S., Weber, R. J. Biomass burning markers and residential burning in the WINTER aircraft campaign. *J. Geophys. Res. – Atmos.*, 124, 1846–1861. <https://doi.org/10.1029/2017JD028153>, 2019.
 21. Haskins, J. D., **Jaeglé, L.**, Shah, V., Lee, B. H., Lopez-Hilfiker, F. D., Campuzano-Jost, P., et al. Wintertime gas-particle partitioning and speciation of inorganic chlorine in the lower troposphere over the Northeast United States and Coastal Ocean. *J. Geophys. Res. – Atmos.*, 123, 12,897–12,916. <https://doi.org/10.1029/2018JD028786>, 2018.
 22. McDuffie, E. E., Fibiger, D. L., Dubé, W. P., Lopez Hilfiker, F., Lee, B. H., **Jaeglé, L.**, et al. ClNO₂ yields from aircraft measurements during the 2015 WINTER campaign and critical evaluation of the current parameterization. *J. Geophys. Res. – Atmos.*, 123, 12,994–13,015. <https://doi.org/10.1029/2018JD029358>, 2018.
 23. Marais, E. A., Jacob, D. J., Choi, S., Joiner, J., Belmonte-Rivas, M., Cohen, R. C., Beirle, S., Murray, L. T., Schiferl, L. D., Shah, V., **Jaeglé, L.** Nitrogen oxides in the global upper troposphere: interpreting cloud-sliced NO₂ observations from the OMI satellite instrument, *Atmos. Chem. Phys.*, 18, 17017-17027. <https://doi.org/10.5194/acp-18-17017-2018>, 2018.
 24. **Jaeglé, L.**, Shah, V., Thornton, J.A., Lopez-Hilfiker, F.D., Lee, B.H., McDuffie, E.E., Fibiger, D., Brown, S. S., Veres, P., Sparks, T., Ebben, C., Wooldridge, P.J., Kenagy, H.S., Cohen, R.C., Weinheimer, A.J., Campos, T.L., Montzka, D.D., Digangi, J.P., Wolfe, G.M., Hanisco, T., Schroder, J.C., Campuzano-Jost, P., Day, D.A., Jimenez, J.L., Sullivan, A.P., Guo, H., Weber, R.J., Nitrogen oxides emissions, chemistry, deposition, and export over the Northeast United States during the WINTER aircraft campaign. *J. Geophys. Res.-Atmos.*, 123, 12,368–12,393. <https://doi.org/10.1029/2018JD029133>, 2018.
 25. Huang, J., **Jaeglé, L.**, Shah, V., 2018. Using CALIOP to constrain blowing snow emissions of sea salt aerosols over Arctic and Antarctic sea ice. *Atmos. Chem. Phys.*, 18, 16253-16269, <https://doi.org/10.5194/acp-18-16253-2018>, 2018.
 26. Lee, B., Lopez-Hilfiker, F. D., Schroder, J. C., Campuzano-Jost, P., Jimenez, J. L., McDuffie, E. E., Fibiger, D., Veres, P., Brown, S.S., Campos, T., Weinheimer, A., Flocke, F., Norris, G., O'Mara, K., Green, J., Fiddler, M., Bililign, S., Shah, V., **Jaeglé, L.**, Thornton, J., Airborne observations of reactive inorganic chlorine and bromine species in the exhaust of coal-fired power plants, *J. Geophys. Res.-Atmos.*, <https://doi.org/10.1029/2018JD029284>, 2018.
 27. Kenagy, H.S., Sparks, T.L., Ebben, C.J., Wooldridge, P.J., Lopez-Hilfiker, F.D., Lee, B.H.,

- Thornton, J.A., McDuffie, E.E., Fibiger, D.L., Brown, S.S., Montzka, D.D., Weinheimer, A.J., Schroder, J.C., Campuzano-Jost, P., Day, D.A., Jimenez, J.L., Dibb, J.E., Campos, T., Shah, V., **Jaeglé, L.**, Cohen, R.C., NO_x Lifetime and NO_y Partitioning During WINTER. *J. Geophys. Res.-Atmos.*, 123, 9813–9827. <https://doi.org/10.1029/2018JD028736>, 2018.
28. ⊕Shah, V., **Jaeglé, L.**, Thornton, J. A., Lopez-Hilfiker, F. D., Lee, B. H., Schroder, J. C., Campuzano-Jost, P., Jimenez, J.L., Guo, H., Sullivan, A.P., Weber, R.J., Green, J.R., Fiddler, M.N., Bililign, S., Campos, T.L., Stell, M., Weinheimer, A.J., Montzka, D.D., Brown, S.S., Chemical feedbacks weaken the wintertime response of particulate sulfate and nitrate to emissions reductions over the eastern United States. *Proc. Nat. Acad. Sci.*, 201803295. <https://doi.org/10.1073/pnas.1803295115>, 2018.
29. Lee, B.H., Lopez-Hilfiker, F.D., Veres, P.R., McDuffie, E.E., Fibiger, D.L., Sparks, T.L., Ebben, C.J., Green, J.R., Schroder, J.C., Campuzano-Jost, P., Iyer, S., D'Ambro, E.L., Schobesberger, S., Brown, S.S., Wooldridge, P.J., Cohen, R.C., Fiddler, M.N., Bililign, S., Jimenez, J.L., Kurtén, T., Weinheimer, A.J., **Jaeglé, L.**, Thornton, J.A., Flight Deployment of a High-Resolution Time-of-Flight Chemical Ionization Mass Spectrometer: Observations of Reactive Halogen and Nitrogen Oxide Species. *J. Geophys. Res.-Atmos.* 123, 7670–7686. <https://doi.org/10.1029/2017JD028082m>, 2018.
30. Schroder, J. C., Campuzano-Jost, P., Day, D. A., Shah, V., Larson, K., Sommers, J. M., Sullivan, A.P., Campos, T., Reeves, J.M., Hills, A., Hornbrook, R.S., Blake, N.J., Scheuer, E., Guo, H., Fibiger, D.L., McDuffie, E.E., Hayes, P.L., Weber, R.J., Dibb, J.E., Apel, E.C., **Jaeglé, L.**, Brown, S.S., Thornton, J.A., Jimenez, J.L., Sources and Secondary Production of Organic Aerosols in the Northeastern United States during WINTER. *J. Geophys. Res.-Atmos.*, 123, 7771–7796. <https://doi.org/10.1029/2018JD028475>, 2018.
31. McDuffie, E. E., Fibiger, D. L., Dubé, W. P., Lopez-Hilfiker, F., Lee, B. H., Thornton, J. A., Shah, V., **Jaeglé, L.**, Guo, H., Weber, R. J., Reeves, J.M., Weinheimer, A.J., Schroder, J. C., Campuzano-Jost, P., Jimenez, J. L., Dibb, J. E., Veres, P., Ebben, C., Sparks, T.L., Wooldridge, P. J., Cohen, R.C., Hornbrook, R. S., Apel, E. C., Campos, T., Hall, S. R., Ullmann, K., Brown, S.S., Heterogeneous N₂O₅ Uptake During Winter: Aircraft Measurements During the 2015 WINTER Campaign and Critical Evaluation of Current Parameterizations. *J. Geophys. Res.-Atmos.*, 123, 4345–4372. <https://doi.org/10.1002/2018JD028336>, 2018.
32. Carlton, A. G., and 35 others including **L. Jaeglé**, Synthesis of the Southeast Atmosphere Studies: investigating fundamental atmospheric chemistry questions, *Bull. Am. Soc.*, 99, 547–567. <https://doi.org/10.1175/BAMS-D-16-0048.1>, 2018.
33. Ye, Z., Mao, H., Driscoll, C. T., Wang, Y., Zhang, Y., and **Jaeglé, L.**, Evaluation of CMAQ coupled with a state-of-the-art mercury chemical mechanism (CMAQ-newHg-Br). *J. Adv. in Model. Earth Syst.*, 10. <https://doi.org/10.1002/2017MS001161>, 2018.
34. **Jaeglé, L.**, R. Wood, and K. Wargan, Multi-year composite view of ozone enhancements and stratosphere-to-troposphere transport in dry intrusions of northern hemisphere extratropical cyclones, *J. Geophys. Res.*, 122, 13,436–13,457. <https://doi.org/10.1002/2017JD027656>, 2017.
35. ⊕Shah, V. and **L. Jaeglé**, Subtropical subsidence and surface deposition of oxidized mercury produced in the free troposphere, *Atmos. Chem. Phys.*, 17, 8999–9017, <https://doi.org/10.5194/acp-17-8999-2017>, 2017.
36. Chen, Q., J. A. Schmidt, V. Shah, **L. Jaeglé**, T. Sherwen, and B. Alexander, Sulfate production by reactive bromine: Implications for the global sulfur and reactive bromine budgets, *Geophys. Res. Lett.*, 44, 7069–7078, doi:10.1002/2017GL073812, 2017.
37. Bieser, J., F. Slemr, J. Ambrose, C. Brenninkmeijer, S. Brooks, A. Dastoor, F. DeSimone, R. Ebinghaus, C. N. Gencarelli, B. Geyer, L. E. Gratz, I. M. Hedgecock, D. Jaffe, P. Kelley, C.-J. Lin, **L. Jaeglé**, V. Matthias, A. Ryjkov, N. E. Selin, S. Song, O. Travnikov, A. Weigelt, W. Luke,

- X. Ren, A. Zahn, X. Yang, Y. Zhu, Y., and N. Pirrone, N., Multi-model study of mercury dispersion in the atmosphere: vertical and interhemispheric distribution of mercury species, *Atmos. Chem. Phys.*, 17, 6925-6955, <https://doi.org/10.5194/acp-17-6925-2017>, 2017.
38. Zhu, L., D. J. Jacob, F. N. Keutsch, L. J. Mickley, R. Scheffe, M. Strum, G. González Abad, K. Chance, Y. Yang, B. Rappenglück, D. B. Millet, M. Baasandorj, **L. Jaeglé**, and V. Shah (2017), Formaldehyde (HCHO) As a Hazardous Air Pollutant: Mapping Surface Air Concentrations from Satellite and Inferring Cancer Risks in the United States, *Env. Sci. & Tech.*, 51 (10), 5650-5657, <https://doi.org/10.1021/acs.est.7b01356>, 2017.
39. ⊕Huang, J. and **L. Jaeglé**, Wintertime enhancements of sea salt aerosol in polar regions consistent with a sea-ice source from blowing snow, *Atmos. Chem. Phys.*, 17, 3699-3712 <https://doi.org/10.5194/acp-17-3699-2017>, 2017.
40. Gratz, L. E., D. A. Jaffe, C. Knote, **L. Jaeglé**, N. E. Selin, T.L. Campos, F.M. Flocke, M. Reeves, D. Stechman, M. Stell, A. J. Weinheimer, D. J. Knapp, D. Montzka, G. S. Tyndall, R. L. Mauldin III, C. Cantrell, E. C. Apel, R. S. Hornbrook, N. J. Blake, Airborne observations of mercury emissions from the Chicago/Gary urban/industrial area during the 2013 NOMADSS campaign, *Atmos. Env.*, 145, 415-423, <https://doi.org/10.1016/j.atmosenv.2016.09.051>, 2016.
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RESEARCH GRANTS & CONTRACTS (with L. Jaeglé as the P.I.)

- **National Aeronautics and Space Administration**, 2021-2024, **\$539,040**, “Global distribution and origin of atmospheric perchlorate: Novel insights from NASA airborne campaigns” (co-PIs: Jose-Luis Jimenez, Pedro Campuzano-Jost)
- **National Aeronautics and Space Administration**, 2019-2022, **\$591,681**, “Sea ice sources of sea salt aerosols and their impact on bromine chemistry in the Arctic and Antarctic troposphere”
- **National Science Foundation**, 2019-2022, **\$569,054**, “Towards an improved understanding of winter air pollution”.
- **Environmental Protection Agency**, 2016-2018, **\$88,000**, “Modeling the effects of ClNO₂ on downwind transport of NO_x during winter”, graduate fellowship for Jessica Haskins.
- **National Aeronautics and Space Administration**, 2015-2018, **\$385,757**, “Sea salt aerosols and their effects on global tropospheric chemistry”.
- **National Aeronautics and Space Administration**, 2011-2015, **\$450,720**, “Midlatitude Cyclones and Atmospheric Composition: A Multi-Sensor Satellite Study”.
- **National Aeronautics and Space Administration**, 2011-2013, **\$60,000**, “Satellite observations of Arctic Aerosols”, Graduate fellowship for Maurizio DiPierro.
- **Electric Power Research Institute**, 2012-2013, **\$87,447**, “Factors influencing trends in mercury wet deposition over the United States”.
- **Electric Power Research Institute**, 2010-2011, **\$75,394**, “Mercury Deposition over the Gulf Coast Region: High Resolution Nested-Grid Modeling”.
- **Boeing Company**, 2010-2011, **\$35,774**, “Impacts of aircraft emissions on surface air quality: Global modeling study”.
- **Alaska Department of Environmental Conservation**, State of Alaska, 2009-2010, **\$63,291**, “Atmospheric Long-range transport and deposition of mercury to Alaska”.
- **National Aeronautics and Space Administration**, 2008-2011, **\$322,144**, “Intercontinental transport of pollution: Constraints from satellite observations”.
- **National Aeronautics and Space Administration**, 2008-2011, **\$259,443**, “Integrated satellite and modeling study of pollution transport into the Arctic”.
- **National Science Foundation**, 2003-2008, **\$516,479**, “CAREER: Global modeling of long-range transport of tropospheric ozone and mercury”.
- **National Aeronautics and Space Administration**, 2001-2004, **\$237,000**, “Using satellite observations to quantify biomass burning emissions of NO_x and hydrocarbons in the Tropics”.
- **ADVANCE**, National Science Foundation, 2002, **\$13,500**, “Transitional Support Program”, University of Washington.

RESEARCH GRANTS & CONTRACTS (L. Jaeglé as Co-I, only her portion of the funding is listed)

- **National Science Foundation**, 2021-2024, Co-I with Bob Holzworth (co-I) and Joel Thornton (PI), “Collaborative Research NSF-BSF Quantitative evaluation of aerosol impacts on the microphysical composition, electrification and radiative forcing of deep tropical convective clouds”
- **National Science Foundation**, 2020-2024, co-PI with Joel Thornton (PI), **\$363,722**. “Collaborative Research: The Greater NY Oxidant, Trace gas, Halogen and Aerosol Airborne Mission (GOTHAAM)”
- **National Science Foundation**, 2014-2017, co-PI with Joel Thornton (PI), **\$355,315**, “Collaborative Research: Wintertime Emissions, Transformations, and Transport in the Northeastern U.S. (WETTNUS)”.

- **National Science Foundation**, 2012-2015, co-PI with Dan Jaffe (PI), **\$314,594**, “Collaborative Research: The North American Mercury Airborne Mercury Experiment (NAAMEX)”.
- **National Aeronautics and Space Administration**, 2008-2009, Co-I with Daniel Jacob (PI), **\$15,666**, “Participation in ARCTAS field campaign”, subcontract to Harvard.
- **National Aeronautics and Space Administration**, 2005, Co-I with Daniel Jacob (PI), **\$29,144**, “Mission design and chemical forecasting for INTEX-B, and post-mission data analysis for INTEX-A and -B”.
- **National Aeronautics and Space Administration**, 2004, Co-PI with Daniel Jacob (PI) and Steven Pawson (Co-PI), **\$29,647**, “Chemical forecasting and quick-look CTM analysis in support of INTEX-A”.
- **National Oceanic and Atmospheric Administration**, August 2001-August 2003, Climate and Global Change Program, Co-PI with Dan Jaffe (PI), **\$20,654**, “Trans-Pacific transport of ozone, carbon monoxide and particulates”.
- **National Park Service**, 2002-2003, Co-PI with Dan Jaffe (PI), **\$22,876**, “Atmospheric transport component: Western Airborne Contaminants Assessment Project”

INVITED SEMINARS (since 1998)

University of Toronto, Canada (2019); Harvard University (2017); University of British Columbia, Canada (2016); NASA Langley Research Center (2015); Rutgers, Newark (2012); University of Toronto, Canada (2011); Ecole Polytechnique Fédérale de Lausanne, Switzerland (2010); University of Washington (2019, 2017, 2011, 2009, 2007, 2005, 2004, 2002, 2001, 2000); California Institute of Technology (2005); Jet Propulsion Laboratory (2005); NOAA Aeronomy Laboratory (2001); University of Chicago (1999); Goddard Space Flight Center (1999); University of Pennsylvania (1999); Harvard University (1998).

SELECTED MEETING ABSTRACTS AND PRESENTATIONS (since 2015)

- Jaeglé, L., Changing Arctic sea ice and its impact on sea salt aerosol, SURFEIT, July 4-6, 2023, British Antarctic Survey, Cambridge, invited speaker.
- Jaeglé, L., Role of blowing snow as a source of sea salt aerosol and halogens in polar regions, The 3rd CATCH Open Science Workshop, May 9-13 2022, invited speaker.
- Kim, D., et al., Tropospheric and stratospheric submicron aerosol chemical composition over the remote northern Pacific ocean during the TI3GER campaign, American Geophysical Union Fall Meeting, 12-16 December 2022, Chicago. Poster. Contributed.
- Robinson, J., et al., Spatiotemporal distribution of blowing snow sea salt aerosol events in the Arctic derived from CALIOP observations, American Geophysical Union Fall Meeting, 12-16 December 2022, Chicago. Oral Presentation. Contributed.
- Chan, Y.C., et al., Modeling the atmospheric production of perchlorate, 10th international GEOS-Chem Meeting (IGC10), Washington University, June 7-10, 2022.
- Campuzano-Jost, P., et al., 9B.6 Sources and Global Distribution of Atmospheric Perchlorate Aerosol: Insights from the Reanalysis of Multiple NASA Airborne Datasets, 103rd Annual American Meteorological Society Meeting, January 8-12, 2023. Oral Presentation. Contributed.
- Kim, D., et al., Tropospheric and Stratospheric Submicron Aerosol Chemical Composition over the Remote Northern Pacific Ocean during the TI³ger Campaign, Poster. Contributed.
- Wright, C.J., et al., Trends and variability in shipping lane lightning enhancements: Pandemic responses, fuel sulfur changes, and biomass burning. 103rd Annual American Meteorological Society Meeting, January 8-12, 2023. Poster. Contributed.
- Jones, R. II, A hemispheric analysis of aerosol particle-lightning relationships. 103rd Annual American Meteorological Society Meeting, January 8-12, 2023. Oral Presentation. Contributed.

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- Jaeglé, L., Chan, Y.C., Kim, D., Campuzano-Jost, P., and Jimenez, J.L., Global distribution and origin of atmospheric perchlorate: Novel insights from the ATom aircraft campaign, Abstract A23D-01, Oral presentation (contributed), American Geophysical Union Fall Meeting, 13-17 December 2021, New Orleans.
- Confer, K., Jaeglé, L., Liston, G., Impact of changing Arctic sea ice extent, sea ice age, and snow depth on sea salt aerosol emissions from blowing snow and the open ocean for 1980-2018, Abstract C53B-06, oral presentation (contributed), American Geophysical Union Fall Meeting, 13-17 December 2021, New Orleans.
- Robinson, J., Jaeglé, L., Oman, L., Composite view of aerosol export mediated by northern hemisphere midlatitude cyclones, Abstract A45P-2053, poster presentation (contributed), American Geophysical Union Fall Meeting, 13-17 December 2021, New Orleans.
- Kim, D., Campuzano Jost, Nault, B., Guo, H., Day, D.A., Schroder, J., Chan, Y.C., Jaeglé, L., Jimenez, J.L., Retrieval of perchlorate and other new aerosol species from mass spectra measured by Aerodyne aerosol mass spectrometers (AMS) during previous aircraft missions around the globe, abstract A45P-2069, poster presentation (contributed), American Geophysical Union Fall Meeting, 13-17 December 2021, New Orleans.
- Wedum, A., Chan, Y.C., Zhai, S., Jongebloed, U., Jaeglé, Cole-Dai, J., Du, Z., Furdui, V., Jiang, S., and Alexander, B., Model Interpretation of the Long-Term Variability of Ice-core Perchlorate, Abstract C45D-1032, poster presentation (contributed), American Geophysical Union Fall Meeting, 13-17 December 2021, New Orleans.
- Jaeglé, L., The influence of chemical feedbacks on wintertime air quality, Atmospheric Chemistry Mechanisms Conference, U. California Davis, November 19 2020, invited speaker.
- Jaeglé, L., et al., Evaluating the impact of blowing snow sea salt aerosol on Arctic springtime BrO and O₃, AGU Fall Meeting, December 2019, San Francisco, contributed.
- Jaeglé, L., Arctic sea ice, snowpack, sea salt aerosol, halogen activation, and near-surface ozone depletion during polar sunrise: Perspectives from observations and models, Gordon Research Conference in Atmospheric Chemistry, Newry, Maine, July 31 2019, invited speaker.
- L. Jaeglé, R. Wood, and K. Wargan, Multi-year composite view of ozone enhancements and stratosphere-to-troposphere transport in dry intrusions of northern hemisphere extratropical cyclones, AGU Meeting, New Orleans, December 2017.
- V. Shah, L. Jaeglé, and 12 others, Aircraft-based observations and modeling of wintertime submicron aerosol composition over the Northeastern U.S., AGU Meeting, New Orleans, December 2017.
- J. Haskins, L. Jaeglé, and 15 others, Constraining wintertime sources of inorganic chlorine over the northeast United States, AGU Meeting, New Orleans, December 2017.
- L. Jaeglé, Extratropical cyclones and stratosphere-troposphere exchange of ozone, Atmospheric Physics and Chemistry seminar, University of Washington, October 2017.
- Jaeglé, L., Composite view of ozone stratosphere-troposphere exchange in midlatitude cyclones, American Meteorological Society, Seattle, January 2017.
- V. Shah, L. Jaeglé and WINTER science team, Aircraft-Based Measurements and Modeling of Submicron Aerosols over Northeastern U.S. during the WINTER 2015 Campaign, American Meteorological Society, Seattle, January 2017.
- J. Huang, and L. Jaeglé, Assessing the Contributions of Open Ocean, Blowing Snow and Frost Flowers as Sources of Sea Salt Aerosol over Polar Regions, American Meteorological Society, Seattle, January 2017.
- V. Shah, and L. Jaeglé, Tagging the origin of oxidized mercury in surface deposition, abstract B33D-0630, American Geophysical Union, San Francisco, Dec 12-16, 2016.
- L., Jaeglé, and WINTER science team, Sources, Chemistry, and Transport of Pollutants over the Eastern United States During the WINTER 2015 Aircraft Campaign, abstract A34F-03, AGU Fall Meeting, San Francisco, Dec 14-18, 2015. Invited Speaker.

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- J. Huang and L. Jaeglé, Sea aerosols in polar regions: Constraining the relative roles of blowing snow and open ocean sources, abstract A11C-0050, AGU Fall Meeting, San Francisco, Dec 14-18, 2015.
- J.A. Thornton and WINTER science team (including Jaeglé), An overview of reactive chlorine measurements during the WINTER C-130 aircraft campaign, abstract A34F-04, AGU Fall Meeting, San Francisco, Dec 14-18, 2015.
- V. Shah, L. Jaeglé and WINTER science team, Sources and Distributions of Secondary Aerosols over the Northeastern United States during the WINTER Aircraft Campaign, abstract A41K-0217, AGU Fall Meeting, San Francisco, Dec 14-18, 2015.
- J. Haskins, L. Jaeglé and WINTER science team, Examining the Role of N_2O_5 Hydrolysis and $ClNO_2$ Production Over the Northeast United States: Results from WINTER 2015 Aircraft Campaign, abstract A41K-0227, AGU Fall Meeting, San Francisco, Dec 14-18, 2015.