

Joanne V. Hall
Assistant Research Professor
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EDUCATION

Ph.D. Geographical Science, University of Maryland (UMD)	May 2017
M.Sc. Atmospheric and Oceanic Science, University of Maryland	May 2011
M.Sc. Environmental Geoscience, University of Bristol, U.K.	May 2009

PROFESSIONAL APPOINTMENTS

NASA Applied Sciences Wildland Fires Program Coordinator	2023 – pres.
Assistant Research Professor – UMD	2020 – pres.
Office of International and Executive Program (OIEP) Instructor – UMD	2019 – pres.
Special Member of Graduate Faculty – UMD	2019 – pres.
Post-Doctoral Research Associate – UMD	2017 – 2020
METI Consultant – U.S. Forest Service, International Programs	2014 – 2014

SUCCESSFUL RESEARCH GRANTS

Co-Investigator, NASA MEASURES grant - A Five-Decade Multi-Sensor Global Burned Area Data Record, (\$2.5million).	2023 – 2028
Co-Investigator - Environmental Defense Fund FireSAT Feasibility Phase 0.5, (\$100,000).	2023 – 2028
Principle Investigator , NASA grant - Supporting the New NASA Wildland Fire Management Program, (\$298,000).	2022 – 2024
Co-Investigator, NASA grant - Support and Maintenance of S-NPP and JPSS VIIRS Global Active Fire and Burned Area Earth System Data Records, (\$268,000).	2021 – 2024
Co-Investigator, NASA grant - MODIS Global Active Fire and Burned Area Product Maintenance, (\$396,000).	2021 – 2024
Co-Investigator, NASA grant - High-Impact Hot Spots of Land Cover Land Use Change: Ukraine and Neighboring Countries, (\$747,000).	2021 – 2024
Co-Investigator, NOAA grant - Development of a Next-Generation Science-Quality Geostationary Satellite Active Fire Product, (\$673,000).	2020 – 2023
Co-Investigator, NASA grant - Development of a Harmonized Multi-Sensor Global Active Fire Dataset, (\$585,000).	2018 – 2021
Co-Investigator, NASA CMS grant - Optimizing the Global Fire Emissions Database for Carbon Monitoring, (\$969,000).	2017 – 2020

RELEVANT PUBLICATIONS & DATASETS

Hall, J.V., Argueta, F., Zubkova, M., Chen, Y., Randerson, J.T., and Giglio, L. (2024). GloCAB: global cropland burned area from mid-2002 to 2020. *Earth System Science Data*, 16(2), 867-885.

Chen, Y., **Hall, J.**, Van Wees, D., Andela, N., Hantson, S., Giglio, L., van der Werf, G., Morton, D., and Randerson, J. T. (2023). Multi-decadal trends and variability in burned area from the fifth version of the Global Fire Emissions Database (GFED5). *Earth System Science Data*, 15(11), 5227-5259.

Hall, J. V., Schroeder, W., Rishmawi, K., Wooster, M., Schmidt, C.C., Huang, C., Csiszar, I., and Giglio, L. (2023). Geostationary active fire products validation: GOES-17 ABI, GOES-16 ABI, and Himawari AHI. *International Journal of Remote Sensing*, 44(10), 3174-3193.

Hall, J.V., Argueta, F., and Giglio, L., (2022). *Crop Residue Burning Emission Coefficients (Version 1)*. Zenodo. <https://doi.org/10.5281/zenodo.7013656>.

Hall, J.V., Argueta, F., and Giglio, L., (2021). *Validation of MCD64A1 and FireCCI51 cropland burned area mapping in Ukraine*. *International Journal of Applied Earth Observations and Geoinformation*, 102, 102443.

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- Hall, J.V.**, Zibstev, S., Giglio, L., Skakun, S., Myroniuk, V., Zhuravel, O., Goldammer, J., and Kussul, N. (2021). *Environmental and Political Implications of Underestimated Cropland Burning in Ukraine*. *Environmental Research Letters*, 16(6), 064019.
- Hall, J.V.**, Zhang, R., Schroeder, W., Huang, C., and Giglio, L. (2019). *Validation of GOES-16 ABI and MSG SEVIRI Active Fire Products*. *International Journal of Applied Earth Observation and Geoinformation*, 83.
- Hall, J.V.**, and Loboda, T.V. (2018). *Quantifying the variability of potential black carbon transport from cropland burning in Russia driven by atmospheric blocking events*. *Environmental Research Letters*, 13, 5.
- Hall, J.V.**, and Loboda, T.V. (2017). *Quantifying the potential for low-level transport of black carbon emissions from cropland burning in Russia to the snow-covered Arctic*. *Frontiers in Earth Science*, 5, 109.
- Hall, J.V.**, Loboda, T.V., Giglio, L., and McCarty, G.W. (2016). *A MODIS-based burned area assessment for Russian croplands: Mapping requirements and challenges*. *Remote Sensing of Environment*, 184, 506-521.

SELECT INVITED TALKS & PANELS

- Invited cropland burning specialist at the ESA-Future Earth joint program's *Fire Science Learning Across the Earth System (FLARE)* workshop (September 2023), St. George's Bermuda.
- Hall, J.V., (28th September 2022). *Earth-Observing Satellites: Detecting Crop Residue Burning & Emissions Challenges*. Agriculture: Tools for measurement and estimation of emissions. United Nations Environment Programme, Climate and Clean Air Coalition (CCAC) and Global Methane Initiative, Washington D.C.
- Hall, J.V., and Giglio, L., (24th October 2019). *GFED Fire Monitoring: Improvements to Crop Residue Emissions*. Open Agricultural Burning: Where Air Quality, Crop Yields, and Climate Combine. United Nations Economic Commission for Europe (UN-ECE) Convention on Long Range Transboundary Air Pollution (LRTAP) Task Force on Techno-Economic Issues (TFTEI) Annual Meeting, Ottawa, Canada.
- Hall, J.V., Giglio, L., Schroeder, W., Skakun, S., and Humber, M. (5th March 2019). *Monitoring and Mapping Open Burning in Ukraine*. Potential and Methods of No-burn Agricultural Practices Workshop, Sokolovsky Institute for Soil Science and Agrochemistry, Kharkiv, Ukraine.
- Hall, J.V., Giglio, L., Schroeder, W., Skakun, S., Humber, M., and McCarty, J. (7th March 2019). *Patterns of Open Burning in Ukraine: Monitoring Emissions*. Reducing Open Agricultural Burning for Policymakers: Soil, Air Quality, and Public Health Paths for European Integration Workshop, Kiev, Ukraine.

SELECT PROFESSIONAL SERVICE

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| <i>Session Moderator</i> for the National Academy of Sciences Greenhouse Gas Emissions from Wildland Fires: Toward Improved Monitoring, Modeling, and Management workshop | 2023 – 2023 |
| <i>Essential Climate Variable Representative</i> for the Global Climate Observing System (GCOS) Implementation Plan: Burned Area, Active Fire, and Fire Radiative Power. | 2022 – 2022 |
| Group on Earth Observations Global Agricultural Monitoring Initiative <i>Essential Agricultural Variable Steward</i> : Agricultural Burned Area. | 2022 – pres. |
| <i>Special Issue Guest Editor</i> , Remote Sensing Applications in Wildfire Management. | 2022 – pres. |
| <i>Outstanding Student Paper Award (OSPA) Judge</i> , American Geophysical Union (AGU) | 2017 – pres. |

SELECT TEACHING, MENTORING & ADVISING

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| <i>NASA Internship Manager & Mentor</i> – 21 students | 2023 – 2023 |
| <i>UMD Internship & Mentorship Professor</i> – 13 students (12 undergraduate and 1 masters) | 2020 – 2023 |
| <i>Dissertation Committee Member</i> – 1 Ph.D. student | 2019 – pres. |
| <i>Instructor</i> – 5 different undergraduate courses | 2012 – pres. |
| <i>Guest Lecturer</i> – 1 graduate course and 3 undergraduate courses | 2014 – pres. |
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