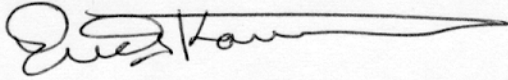


**CURRICULUM VITAE**  
**Eric Stewart Kasischke**  
**30 December 2011**

Signature:



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**1. PERSONAL INFORMATION**

**a. Current Appointments**

*Primary (100%)*

Professor (August 2004 to present)  
Department of Geography  
University of Maryland  
College Park, MD

*Affiliated Positions*

Senior Research Associate (1997 to present)  
Institute of Arctic Biology  
University of Alaska, Fairbanks  
Fairbanks, Alaska

Adjunct Faculty (2010 to present)  
School of Natural Resources and Agricultural Sciences  
University of Alaska, Fairbanks  
Fairbanks, Alaska

**b. Education**

BS, Natural Resources, The University of Michigan, 1974  
MS, Remote Sensing, The University of Michigan, 1980  
PhD, Natural Resources, The University of Michigan, 1992

**c. Employment Background**

Associate Professor (August 2000 to July 2004)  
Department of Geography  
University of Maryland  
College Park, MD

Associate Research Professor (January to August 2000)  
Department of Geography  
University of Maryland  
College Park, MD

Senior Research Scientist and Head (1997-1999)  
Terrestrial Sciences Department  
Earth Science Group  
ERIM International, Incorporated  
Ann Arbor, Michigan

Senior Scientist (1990-1997)  
Earth Science Center  
Environmental Research Institute of Michigan  
Ann Arbor, Michigan

Adjunct Assistant Research Professor (August 1996-2000)  
Nicholas School of the Environment  
Duke University  
Durham, North Carolina

Assistant Research Professor (Joint appointment - October 1992 to July 1996)  
Nicholas School of the Environment  
Duke University  
Durham, North Carolina  
Head (1985-1990)  
Earth Systems Science Programs  
Radar Science Laboratory  
Environmental Research Institute of Michigan  
Ann Arbor, Michigan

Research Scientist (1978-1985)  
Radar Science Laboratory  
Environmental Research Institute of Michigan  
Ann Arbor, Michigan

Research Assistant (1976-1978)  
Environmental Research Institute of Michigan  
Ann Arbor, Michigan

Research Associate (1975)  
Institute of Social, Economic, and Government Research  
University of Alaska  
Fairbanks, Alaska

Undergraduate Assistant in Research (1973-1974)  
School of Natural Resources  
The University of Michigan  
Ann Arbor, Michigan

## **2. RESEARCH, SCHOLARLY, AND CREATIVE ACTIVITIES**

*For multi-authored publications, the level of contribution is given by the following superscript codes:*

1 - Primary contributor, 2 - Major contributor, 3 - Principal investigator on research contained in publication, 4 - Principal contributor with first author, 5 - Contributor only.  
Student Contributors are italicized, post-docs or research assistants working under my supervision are denoted with an asterisk (\*).

### **a. Books and Book Chapters**

#### *i. Authored*

- Kasischke, E.S.**, P.L. Jackson and G.A. Meadows, *The Use of Synthetic Aperture Radar Imagery to Detect Hazards to Navigation*, Environmental Research Institute of Michigan Publication No. 169200-2-F, Ann Arbor, Michigan, 194 pp., 1984<sup>1,3</sup>.

*ii. Edited*

1. **Kasischke, E.S.**, and B.J. Stocks (editors), *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York, 461 pp., 2000<sup>3,4</sup>.

*iii. Book Chapters*

32. **Kasischke, E.S.**, and Chapin III, F.S. Increasing Vulnerability of Alaska's Boreal Forest as a Result of Climate Warming and the Changing Fire Regime. pp.175-192 in *Sudden and Disruptive Climate Change: Exploring the Real Risks and How We Can Avoid Them*, edited by M.C. MacCracken, F. Moore, and J.C. Topping, London: Earthscan Publications, 2008<sup>1,3</sup>.
31. Chapin, F.S., III, A.D. McGuire, R.W. Ruess, M.W. Walker, R. Boone, M. Edwards, B. Finney, L.D. Hinzman, J.B. Jones, G.P. Juday, **E.S. Kasischke**, K. Kielland, A.H. Lloyd, M.W. Oswood, C.-L. Ping, E. Rexstad, V. Romanovsky, J. Schimel, E. Sparrow, B. Sveinbjornsson, D.W. Valentine, K. Van Cleve, D.L. Verbyla, L.A. Viereck, R.A. Werner, T.L. Wurtz, and J. Yarie, Summary and Synthesis: Past and Future Changes in Alaska's Boreal Forest, pp. 332-338 in *Alaska's Changing Boreal Forest*, edited by F.S. Chapin, III, M. Oswood, K. Van Cleve, L. Viereck, and D.L. Verbyla, Oxford Press, Cambridge, 2006<sup>5</sup>.
30. **Kasischke, E.S.**, T.S. Rupp, and D.L. Verbyla. Fire trends in the Alaskan boreal forest region, pp. 285-301 in *Alaska's Changing Boreal Forest*, edited by F.S. Chapin, III, M. Oswood, K. Van Cleve, L. Viereck, and D.L. Verbyla, Oxford Press, Cambridge, 2006<sup>1,3</sup>.
29. Csiszar, I., C.O. Justice, A.D. McGuire, M.A. Cochrane, D.P. Roy, F. Brown, S.G. Conard, P.G.H. Frost, L. Giglio, C. Elvidge, M.D. Flannigan, **E. Kasischke**, D.J. McRae, T.S. Rupp, B.J. Stocks, and D.L. Verbyla. Land Use and Fire, pp. 329-350 in *Land Change Science: Observing, Monitoring, and Understanding Trajectories of Change on the Earth's Surface*, edited by G. Gutman, A.C. Janetos, C.O. Justice, E.R. Moran, J.F. Mustard, R.R. Rindfuss, D. Skole, B.L. Turner II, and M.A. Cochrane, Kluwer Academic Publishers Dordrecht, Netherlands, 2004<sup>5</sup>.
28. Krankina, O., K.M. Bergen, G. Sun, H.H. Shugart, V. I. Kharuk, **E. Kasischke**, J.G. Masek, W.B. Cohen, and M. Duane. Northern Eurasia: Remote Sensing of Boreal Forests in Selected Regions, pp. 123-138 in *Land Change Science: Observing, Monitoring, and Understanding Trajectories of Change on the Earth's Surface*, edited by G. Gutman, A.C. Janetos, C.O. Justice, E.R. Moran, J.F. Mustard, R.R. Rindfuss, D. Skole, B.L. Turner II, and M.A. Cochrane, Kluwer Academic Publishers Dordrecht, Netherlands, 2004<sup>2,3</sup>.
27. McGuire, A.D., M. Apps, F.S. Chapin III, R. Dargaville, M.D. Flannigan, **E.S. Kasischke**, D. Kicklighter, J. Kimball, W. Kurz, D.J. McRae, K. McDonald, J. Melillo, R. Myneni, B.J. Stocks, D.L. Verbyla, and Q. Zhuang. Land cover disturbances and feedbacks to the climate system in Alaska and Canada, pp. 139-161 in *Land Change Science: Observing, Monitoring, and Understanding Trajectories of Change on the Earth's Surface*, Kluwer Academic Publishers, Dordrecht, Netherlands, 2004<sup>5</sup>.
26. **Kasischke, E.S.**, S. Goetz, M.C. Hansen, S.L. Ustin, M. Ozdogan, C.E. Woodcock, J. Rogan, Temperate and boreal forests. In S. L. Ustin, editor. *Manual of Remote Sensing, 3<sup>rd</sup> Edition, Volume 4 - Natural Resources Management and Environmental Monitoring*. John Wiley and Sons, New York, pp. 147-238, 2004<sup>1</sup>.

25. Kharuk, V.I., S.G. Shiyatov, **E. Kasischke**, E.V. Fedotova, M.M. Naurzbaev, Forest–tundra ecotone response to climate change, in *Problems of Ecological Monitoring and Ecosystem Modelling*, 18, edited by Y.A. Izrael et. al., Russian Academy of Sciences, St. Petersburg, Russia pp. 234-260, 2002<sup>2,3</sup>.
24. Arino, O., I. Piccolini, **E. Kasischke**, F. Siegert, E. Chuvieco, P. Martin, Z. Li, R. Fraser, H. Eva, D. Stroppiana, J. Pereira, J.M.N. Silva, D. Roy, and P.M. Barbosa, Methods of mapping surfaces burned in vegetation fires, in *Global and Regional Vegetation Fire Monitoring from Space: Planning a Coordinated International Effort*, edited by F.J. Ahern, J.G. Goldammer, and C.O. Justice, SPB Academic Publishing, The Hague, The Netherlands, pp. 227-255, 2001<sup>2</sup>.
23. Ahern, F., H. Epp, D. Cahoon, N. French\*, and **E. Kasischke**. Using visible and near-infrared satellite imagery to monitor forest cover and fires in boreal forests. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York pp. 312-331, 2000<sup>5</sup>.
22. Bourgeau-Chavez, L.L.\*, **E.S. Kasischke**, J.P. Mudd\*, and B.J. Stocks. The distribution of forest ecosystems in the North American boreal region. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York, pp. 111-132, 2000<sup>3,5</sup>.
21. Bourgeau-Chavez, L.L.\*, **E.S. Kasischke**, J.P. Mudd\*, and N.H.F. French\*. Distribution of forest ecozones and carbon in the boreal region. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 258-273, 2000<sup>3,4</sup>.
20. French, N.H.F.\*, **E.S. Kasischke**, B.J. Stocks, J.P. Mudd\*, D.L. Martell, and B.S. Lee. Carbon release during fires in boreal forests. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York pp. 377-388, 2000<sup>3,4</sup>.
19. **Kasischke, E.S.** Boreal ecosystems in the global carbon cycle. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 19-30, 2000<sup>1,3</sup>.
18. **Kasischke, E.S.** Processes influencing carbon cycling in the N. American boreal forest. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 103-110, 2000<sup>1,3</sup>.
17. **Kasischke, E.S.** Effects of climate change and fire on carbon storage in boreal forests. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 440-452, 2000<sup>1,3</sup>.
16. **Kasischke, E.S.**, and B.J. Stocks. Modeling of fire and ecosystem processes and the effects of climate change on carbon cycling in the boreal forest. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 347-355, 2000<sup>1,3</sup>.
15. **Kasischke, E.S.**, B.J. Stocks, K.P. O'Neill, N.H.F. French\* and L.L. Bourgeau-Chavez\*. Direct effects of fire on the boreal forest carbon budget, pp. 51-68 in M. Beniston, J.L. Innes, and M.M. Verstraete (eds), *Biomass Burning and its Inter-Relationships with the Climate System*, Kluwer Academic Press, Dordrecht, The Netherlands, pp. 51-68, 2000<sup>1,3</sup>.
14. **Kasischke, E.S.**, L.L. Bourgeau-Chavez\*, K.P. O'Neill, and N.H.F. French\*, Indirect and long-term effects of fire on the boreal forest carbon budget, in M. Beniston, J.L. Innes, and M.M. Verstraete (eds.), *Biomass Burning and its Inter-Relationships with the Climate System*, Kluwer Academic Press, Dordrecht, The Netherlands, pp. 263-280, 2000<sup>1,3</sup>.

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12. **Kasischke, E.S.**, K.P. O'Neill, N.H.F. French\*, L.L. Bourgeau-Chavez\*, and D. Richter. The influence of fire on long-term patterns of forest succession in Alaskan boreal forests. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 214-235, 2000<sup>1,3</sup>.
11. **Kasischke, E.S.**, L.L. Bourgeau-Chavez\*, N.H.F. French\* and P.A. Harrell\*. Monitoring boreal forests using imaging radars in boreal forests. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 331-346, 2000<sup>1,3</sup>.
10. **Kasischke, E.S.**, N.H.F. French\* and L.L. Bourgeau-Chavez\*. Using satellite data to monitor fire-related processes in boreal forests. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 406-422, 2000<sup>1,3</sup>.
9. Murphy, P.J., J.P. Mudd\*, B.J. Stocks, **E.S. Kasischke**, D. Barry, M.E. Alexander, and N.H.F. French\*. Historical fire records in the boreal forest. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 274-288, 2000<sup>2,3</sup>.
8. Richter, D., **E.S. Kasischke**, and K.P. O'Neill. Stimulation of soil respiration in burned black spruce (*Picea mariana* L.) forest ecosystems. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 197-213, 2000<sup>2,3</sup>.
7. Stocks, B.J. and **E.S. Kasischke**. Information requirements and fire management and policy issues. In E.S. Kasischke and B.J. Stocks, editors. *Fire, Climate Change and Carbon Cycling in the Boreal Forest*, Ecological Studies Series vol. 138, Springer-Verlag, New York. pp. 7-19, 2000<sup>4</sup>.
6. Brown, S., A.Z. Shvidenko, W. Galinski, R.A. Houghton, **E.S. Kasischke**, P. Kauppi, W.A. Kurz, I. Nalder, and V.A. Rojkov, Forests and the global carbon cycle: past, present and future role. In *Forest Management and the Global Carbon Cycle*. M.J. Apps and D.T. Price, editors, NATO ASI subseries 1, Vol. 40 "Global Environmental Change", Springer-Verlag, Berlin, pp. 199-208, 1996<sup>5</sup>.
5. French, N.H.F.\*, **E.S. Kasischke**, R. D. Johnson\*, L.L. Bourgeau-Chavez\*, A.L. Frick\*, and S.L. Ustin, Using multi-sensor satellite data to monitor carbon flux in Alaskan boreal forests, *Biomass Burning and Climate Change - Volume 2 - Biomass Burning in South America, Southeast Asia, and Temperate and Boreal Ecosystems, and the Oil Fires of Kuwait*, edited by J.S. Levine, MIT Press, Cambridge, MA, pp. 808-826, 1996<sup>2,3</sup>.
4. **Kasischke, E.S.**, Fire, climate change, and carbon cycling in Alaskan boreal forests, *Biomass Burning and Climate Change - Volume 2 - Biomass Burning in South America, Southeast Asia, and Temperate and Boreal Ecosystems, and the Oil Fires of Kuwait*, edited by J.S. Levine, MIT Press, Cambridge, MA, pp. 827-833, 1996<sup>1,3</sup>.
3. Nuesch, D.R. and **E.S. Kasischke**, Imaging Radar Fundamentals, in *Applications of Remote Sensing to Agrometeorology*, F. Toselli (ed.), Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 157-180, 1989<sup>4</sup>.
2. Vesecky, J.F., R.H. Stewart, R.A. Shuchman, H.M. Assel, **E.S. Kasischke** and J.D. Lyden, On the Ability of the Synthetic Aperture Radar to Measure Ocean Surface Waves, in *Proceedings of the*

*IUCRM Symposium on Wave Dynamics and Radio Probing of the Ocean Surface*, O.M. Phillips and K. Hasselmann (eds.), Plenum, New York, 1986<sup>5</sup>.

1. Shuchman, R.A. and **E.S. Kasischke**, Refraction of Coastal Ocean Waves, in *Spaceborne Synthetic Aperture Radar Imagery for Oceanography*, ed. by R.C. Beal, P.S. DeLeonibus and I. Katz, Johns Hopkins Univ. Press, Baltimore, MD, pp. 128-135, 1981<sup>4</sup>.

**b. Articles in Refereed Journals**

*i. In review*

1. Goetz, S.J., B. Bond-Lamberty, B. Law, J. Hicke, R.A. Houghton, S. McNulty, T. O'Halloran, A.J. H. Meddens, E.M. Pfeifer, D. Mildrexler, and **E.S. Kasischke**, Observations and assessment of forest carbon recovery following disturbance in North America, *Journal of Geophysical Research*, in review<sup>5</sup>.
2. *Gorsevski, V.*, J. Dempenwolf, and **E.S. Kasischke**, Impacts of civil war on anthropogenic fire activity in Southern Sudan and Northern Uganda, *Remote Sensing*, in review<sup>5</sup>.
3. Veverica, T., E. Kane, and E. Kasischke, Tamarack and black spruce adventitious root patterns are similar in their ability to estimate organic layer depths in northern temperate forests, *Canadian Journal of Soil Science*, in review<sup>5</sup>.
4. Yuan, F.-M, S.-H. Yi, A.D. McGuire, K.D. Johnson, J.-J. Liang, J.W. Harden, **E.S. Kasischke**, and W.A. Kurz, The relative roles of changes in climate and fire regime on boreal forest vegetation and soil carbon stocks of the Yukon River Basin between 1960 and 2006, *Ecological Applications*, in review<sup>3,5</sup>.

*ii. In press*

*iii. Published*

113. *Gorsevski, V.*, J. Dempenwolf, T. Loboda, and **E.S. Kasischke**, Impacts of armed conflict on the Eastern Afrotropical forest region on the Sudan - Uganda border, *Remote Sensing of Environment*, 118, 10-20, 2012<sup>5</sup>.
112. **Kasischke, E.S.** and *E.E. Hoy*, Controls on carbon consumption during Alaskan wildland fires, *Global Change Biology*, 2012<sup>1,3</sup>.
111. **Kasischke, E.S.**, M.R. Turetsky, and E.S. Kane, Effects of trees on the burning of organic layers on permafrost terrains, *Forest Ecology and Management*, 267, 127-133, 2012 in press<sup>1,3</sup>.
110. Barrett, K., A.D. McGuire, *E.E. Hoy*, and **E.S. Kasischke**, Potential shifts in dominant forest cover in interior Alaska driven by variations in fire severity, *Ecological Applications*, 21, 2380-2396, 2011<sup>2,3</sup>.
109. **Kasischke, E.S.**, *M.A. Tanase*, L.L. Bourgeau-Chavez, and *M. Borr*, Soil moisture limitations on monitoring boreal forest regrowth using spaceborne L-band SAR data, *Remote Sensing of Environment*, 115, 227-232, 2011<sup>1,3</sup>.
108. **Kasischke, E.S.**, T. Loboda, L. Giglio, N.H.F. French, B. de Jong, and D. Riano, Quantifying burned area from fires in North American forests for carbon cycle science, *Journal of Geophysical Research*, 116, doi:10.1029/2011JG001707, 2011<sup>1,3</sup>.
107. Loboda, T.V., *E. Hoy*, L. Giglio, and **E.S. Kasischke**, Mapping burned area from the MODIS data in high northern latitudes: data limitations driven modifications to the regional burned area mapping algorithm, *Int. J. Wildland Fire.*, 20, 487-496<sup>2,3</sup>.

106. Morton, D.C., R.S. DeFries, J. Nagol, C.M. Souza, Jr., **E.S. Kasischke**, G.C. Hurtt, and R. Dubayah, Mapping canopy damage from understory fires in Amazon forests, *Remote Sensing of Environment*, 115, 1706-1720, 2011<sup>5</sup>.
105. Shenoy, A., J.F. Johnstone, and **E.S. Kasischke**, Persistent effects of fire severity on early successional forests in interior Alaska, *Forest Ecology and Management*, 261, 381-390, 2011<sup>2,3</sup>.
104. Tanase, M.A., J. de la Riva, M. Santoro, **E.S. Kasischke**, and F. Cabello, Sensitivity of SAR data to post-fire forest regrowth in Mediterranean and boreal forests, *Remote Sensing of Environment*, 2075-2085, 115, 2011<sup>2</sup>.
103. Turetsky, M.R., E.S. Kane, J. Harden, K. Manies, R. Ottmar, *E.E. Hoy*, and **E.S. Kasischke**, Recent acceleration of biomass burning and carbon losses in Alaskan forests and peatlands, *Nature Geoscience*, 4, 27-31, 2011<sup>3,4</sup>.
102. Alcaarez-Segura, D., E. Chuvieco, H.E. Epstein, **E.S. Kasischke**, and A. Trishchenko, Debating the greening vs. browning of the North American boreal forest: differences between satellite datasets, *Glob Change Biol.*, 16, 770-780, 2010<sup>5</sup>.
101. Barrett, K., **E.S. Kasischke**, A.D. McGuire, M.R. Turetsky, and E.S. Kane, Modeling burn severity in black spruce stands in the Alaskan boreal forest, *Remote Sensing of Environment*, 114, 1494-1503, 2010<sup>3</sup>.
100. Chapin, F.S. III, A.D. McGuire, R.W. Ruess, T.N. Hollingsworth, M.C. Mack, J.F. Johnstone, **E.S. Kasischke**, E.S. Euskirchen, J.B. Jones, M.T. Jorgenson, K. Kielland, G.P. Kofinas, J. Yarie, and D.L. Taylor, Resilience to climate change in Alaska's boreal forest, *Canadian Journal of Forest Research*, 40, 1360-1370, 2010<sup>5</sup>.
99. **Kasischke, E.S.**, D.L. Verbyla, T.S. Rupp, A.D. McGuire, K.A. Murphy, R. Jandt, J.L. Barnes, *E.E. Hoy*, P.A. Duffy, M. Calef, and M.R. Turetsky, Alaska's changing fire regime - implications for the vulnerability of its boreal forests, *Canadian Journal of Forest Research*, 40, 1313-1324, 2010<sup>1</sup>.
98. Yi, S., A.D. McGuire, **E.S. Kasischke**, J. Harden, K. Manies, and M. Mack, A dynamic organic soil biogeochemical model for analyzing carbon responses of black spruce forests in interior Alaska, *Journal of Geophysical Research* 115, article no. G04015, doi:10.1029/2010JG001302 2010<sup>3,5</sup>.
97. **Kasischke, E. S.**, L. L. Bourgeau-Chavez, A. R. Rober, K. H. Wyatt, J. M. Waddington, and M. R. Turetsky. Effects of soil moisture and water depth on ERS SAR backscatter measurements from an Alaskan wetland complex. *Rem. Sens. Environ.*, 113, 1868-1873, 2009<sup>1,3</sup>.
96. Yi, S., A.D. McGuire, J. Harden, **E. Kasischke**, K. Manies, L. Hinzman, A. Liljedahl, J. Randerson, H. Liu, V. E. Romanovsky, S. Marchenko, and Y. Kim, Interactions between soil, thermal and hydrological dynamics in the response of Alaska ecosystems to fire disturbance, *J. Geophys. Res.*, 114, article no. G02015, doi:10.1029/2008JG000841, 2009<sup>3</sup>.
95. French, N.H.F., J.L. Allen, R.J. Hall, *E.E. Hoy*, E.S. **Kasischke**, K.A. Murphy, and D.L. Verbyla, Using Landsat Data to assess fire and burn severity in the North American boreal forest region: an overview, *Int. J. Wildland Fire*, 17, 443-462, 2008<sup>2,3</sup>.
94. *Hoy, E.E.*, N.H.F. French, M.R. Turetsky, S.N. Trigg\*, and **E.S. Kasischke**, Evaluating the potential of the normalized burn ratio and other spectral indices for assessment of fire severity in Alaskan black spruce forests, *Int. J. Wildland Fire*, 17, 500-514, 2008<sup>2,3</sup>.
93. **Kasischke, E.S.**, M.R. Turetsky, R.D. Ottmar, N.H.F. French, G. Shetler, *E.E. Hoy*, and *E.S. Kane*, Evaluation of the composite burn index for assessing fire severity in Alaskan black spruce forests, *Int. J. Wildland Fire*, 17, 515-526, 2008<sup>1,3</sup>.

92. Lang, M., **E.S. Kasischke**, S.D. Prince, and K.W. Pittman, Assessment of C-band synthetic aperture radar data for mapping and monitoring Coastal Plain forested wetlands in the Mid-Atlantic Region, U.S.A., *Remote Sens. Env.*, 112, 4120-4130, 2008<sup>2</sup>.
91. Lang, M., P.A. Townsend, and **E.S. Kasischke**, Influence of incidence angle on detecting flooded forests using C-band SAR, *Remote Sens. Env.*, 112, 3898-3907, 2008<sup>2</sup>.
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**e. Talks, Abstracts, and Other Professional Papers Presented**

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Fire severity and permafrost controls on post-fire succession in Alaskan black spruce forests, Oak Ridge National Laboratory, Oak Ridge, Tennessee, 24 August 2011.

Why ABoVE?, 2011 NASA Carbon Cycle & Ecosystems Joint Science Workshop, 6 October 2011, Alexandria, VA.

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Fire and the vulnerability of Alaskan black spruce ecosystems to recent climate change, Invited Seminar, Marine Biological Lab, Woods Hole, MA, 17 March 2009.

An overview of the role of disturbance in the terrestrial carbon budget, Fall AGU Meeting, 15-19 December, 2008, San Francisco, CA.

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- Variations in soil carbon release from fires in Alaskan boreal forests, American Geophysical Union Spring Meeting, Boston, MA, June 1-4, 1999.
- Perspectives on commercial applications for spaceborne imaging radars, National Space Forum, Washington, DC. June 2-5, 1999.
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## **f. Contracts and Grants**

### ***i. Current***

*Evaluation of Approaches for Assessing the Impacts of Natural Disturbances on Aboveground Carbon Storage in and Emissions from U.S. Forests – A Carbon Monitoring System Science Definition Team Proposal*, National Aeronautics and Space Administration, \$75,000, June 2011 to May 2013.

*Assessing the Impacts of Fire and Insect Disturbance on the Terrestrial Carbon Budgets of Forested Areas in Canada, Alaska, and the Western United States*, National Aeronautics and Space Administration, \$562,000, May 2008-April 2012.

*Support of Bonanza Creek LTER Studies*, University of Alaska- Fairbanks, \$15,000 for support of research, September 2010 to August 2016.

### ***ii. Completed***

*Vulnerability and Resiliency of Arctic and Sub-Arctic Landscapes (VuRSAL) - the Role of Interactions between Climate, Permafrost, Hydrology, and Disturbance in Driving Ecosystem Processes*, National Aeronautics and Space Administration, \$229,000, April 2009-March 2012.

*Burning of Organic Soils in Boreal Forests*, National Aeronautics and Space Administration, \$750,000 to the University of Maryland, April 2005 to March 2009.

*Support of Bonanza Creek LTER Studies*, University of Alaska- Fairbanks, \$15,000 for support of research, September 2006 to August 2010.

*Remote Monitoring of Changes in Forest Functional Types after Disturbance from Fire in the North American Boreal Region: Implications for Interpreting the Effects of Satellite-Observed Changes in Vegetation Greenness on the Terrestrial Carbon Budget*, National Aeronautics and Space Administration, \$768,000 to the University of Maryland, September 2006 to August 2010.

*Assessing the effects of sea level rise on the patterns of coastal flooding and the distribution and extent of wetlands in the Chesapeake Bay using Landsat and satellite radar imagery*, National Aeronautics and Space Administration, \$417,370 to the University of Maryland, December 2002 to November 2006.

*Support of Bonanza Creek LTER Studies*, University of Alaska- Fairbanks, \$10,000 for support of research, September 2002 to August 2005.

*Using Envisat Data to Monitor Wetland Hydrologic Processes in the Eastern United States*, European Space Agency, Data Grant Award (data worth approximately \$100,000), January 2000 to December 2006. Principal Investigator.

*Radar Monitoring of Hydrologic Variability in Maryland's Forested Coastal Plain Wetlands*, National Aeronautics and Space Administration Earth Systems Science Fellowship Award to Megan Weiner, Department of Geography Graduate Student, August 2002 to July 2005, \$69,000. Faculty Advisor.

*Biomass Burning Emissions Workshop*, National Aeronautics and Space Administration, Total Grant \$66,000 from March 2002 to February 2004. Principal Investigator.

*Analysis of MOPITT Data for Investigation of Boreal Forest Fire Emissions*, National Aeronautics and Space Administration Earth Systems Science Fellowship Award to Edward J. Hyer, Department of Geography Graduate Student, August 2001 to July 2004, \$66,000. Faculty Advisor.

*Influence of Humans, Climate, and Fire on Forest Ecosystems and Carbon Dynamics in Indonesian Borneo*, National Aeronautics and Space Administration, Total Grant \$775,000 from August 2001 to July 2004, University of Maryland sub-contract from Yale University of \$244,000. UM Principal Investigator.

*Using radar data to estimate NPP in boreal forests*, National Aeronautics and Space Administration, \$390,000 to the University of Maryland, November 2000 to May 2004, Co-Principal Investigator.

*Determining the Contribution of Emissions from Boreal Forest Fires to Interannual Variations in Atmospheric CO<sub>2</sub> at High Northern Latitudes*, National Aeronautics and Space Administration, \$750,000 to the University of Maryland, May 2000 to April 2004. Principal Investigator.

*The use of satellite fire products and models to investigate the effects of fires on the global carbon cycle*, National Aeronautics and Space Administration (under sub-contract to the California Institute of Technology), \$67,000 to the University of Maryland, May 2000 to April 2004. Co-Investigator.

*Support of NASA Planning Activities*, National Aeronautics and Space Administration, \$86,700, June 2000 to May 2001. Principal Investigator.

*Bonanza-Poker-Caribou Creek, Alaska Long-Term Ecological Research Project Support*, U.S. Forest Service, \$14,000 October 1998 to September 2000 (through the University of Alaska, Fairbanks). Co-Investigator.

*Monitoring the effects of the Baikal-Amur Mainline Railroad on Forest Cover and Carbon Budgets of the Siberian Boreal Forest*, National Aeronautics and Space Administration, May 1997 to April 2000, \$300,000. Co-Principal Investigator (with Hank Shugart of the University of Virginia).

*The role of wildfire in Alaska: Experimental and regional approaches to improved understanding of boreal feedbacks to climate*, National Science Foundation, \$17,000 October 1997 to September 2000 (through the University of Alaska, Fairbanks). Co-Investigator.

*Monitoring the effects of fires on boreal forest ecosystems using imaging radar data*, National Aeronautics and Space Administration, February 1996 to January 2000, \$265,000. Principal Investigator.

*Monitoring hydrologic processes in southern Florida ecosystems*, U.S. Environmental Protection Agency (Principal Investigator. Co-investigator with C. Richardson and Ed Romanowicz of Duke University), October 1996 to September 1999, \$900,000.

*Assessing the effects of land cover change on vegetation cover and land/atmosphere energy exchanges in the southwest U.S.*, National Aeronautics and Space Administration, November 1997 to October 1999, \$250,000. Principal Investigator.

*Support of the boreal forest study of the Environmental Working Group of the Joint Russian/U.S. Commission on Economic and Technological Cooperation*, National Aeronautics and Space Administration, November 1997 to October 1999, \$450,000. Principal Investigator.

*Using Radarsat Imagery to Monitor South Florida Wetlands*, Data Grant from the National Aeronautics and Space Administration (data worth \$20,000), January 1997 to December 1999. Principal Investigator.

*Monitoring Russian Boreal Forests using ERS SAR Imagery*. European Space Agency, Data Grant Award (data worth approximately \$20,000), January 1998 to December 2000. Principal Investigator.

*Using ERS-1 and ERS-2 SAR Imagery to Monitor South Florida Wetlands*, European Space Agency, Data Grant Award (data worth approximately \$150,000), January 1994 to December 1999. Principal Investigator.

*Using Advanced Remote Sensing Technologies for Environmental Monitoring and the Study of Ecosystem Processes - Monitoring Landscape Level Changes in Patterns of Land Use, Land Cover, and Carbon Storage in Forested Regions*, U.S. Environmental Protection Agency, \$2,100,000, October 1994 to September 1998. Principal Investigator.

*Monitoring Hydroperiod in South Florida Wetlands Using Spaceborne Imaging Radar Data*, National Oceanic and Atmospheric Association, \$130,000, October 1995 to September 1996. Principal Investigator.

*Monitoring Fire Disturbed Black Spruce Forests in the Interior of Alaska Using Spaceborne SAR Data*, \$225,000, April 1995 to March 1998. Principal Investigator (Co-investigators: Dan Richter of Duke University and Yong Wang of East Carolina University).

*Estimation of Aboveground Biomass in Southeastern Pine Forests Using SIR-C/X-SAR Data*, National Aeronautics and Space Administration, \$550,000, September 1988 through August 1997. Co-Principal Investigator (with Norm Christensen at Duke University).

*Calibration Experiments for the EOS SAR Science Team*, National Aeronautics and Space Administration, \$100,000, April 1989 - March 1993. Principal Investigator.

*Monitoring Boreal Forests Using ERS SAR Imagery*, National Aeronautics and Space Administration, \$360,000, October 1991 through September 1994. Principal Investigator (Co-investigators: Norm Christensen at Duke University and Susan Ustin at the University of California - Davis).

*Monitoring Southern Pine Forests Using Airborne SAR Imagery*, National Aeronautics and Space Administration, \$360,000, September 1988 to August 1991. Principal Co-Investigator (with Norm Christensen at Duke University and Craig Dobson at the University of Michigan).

### **g. Fellowships, Prizes, and Awards**

Naval Reserve Officer Training Corps, Full Academic Scholarship, University of Michigan, 1970.

Elected to Xi Sigma Pi, 1990

National Aeronautics and Space Administration, Space Act Technical Brief Award, 1991.

Institute for Electrical and Electronic Engineers Transactions on Geoscience and Remote Sensing Paper of the Year Award (contributing author) - 1991.

Samuel A. Graham Award (award to the top Forest Ecology PhD Student) - School of Natural Resources and Environment, University of Michigan – 1992.

### **h. Editorships, Editorial Boards, and Reviewing Activities**

Founding Associate Editor (December 2004 – present) – *Journal of Geophysical Research - Biogeosciences*

Editorial Board (1999 - present) - *Remote Sensing of Environment*

Associate Editor (1999, 2002) - *International Journal of Wildland Fire*

### **Reviewer: Refereed Journals: 2006-2011**

1. *Agriculture and Forest Meteorology*
2. *Atmospheric Chemistry and Physics*
3. *Biogeochemistry*
4. *Biogeosciences*
5. *Bulletin of the American Meteorological Society*
6. *Canadian Journal of Forest Research*
7. *Earth Interactions*
8. *Ecological Applications*
9. *Ecology*
10. *Ecosystems*
11. *Environmental Science and Technology*
12. *Forest Ecology and Management*
13. *Global Biogeochemical Cycles*
14. *Global Change Biology*
15. *Geophysical Research Letters*
16. *Geoscience and Remote Sensing – Letters*
17. *IEEE Transactions on Geoscience and Remote Sensing – Letters*
18. *International Journal of Remote Sensing*

19. *International Journal of Wildland Fire*
20. *Journal of Applied Meteorology and Climatology*
21. *Journal of Biogeography*
22. *Journal of Climate*
23. *Journal of Environmental Management*
24. *Journal of Geophysical Research – Atmospheres*
25. *Journal of Geophysical Research –Biogeosciences*
26. *Landscape Ecology*
27. *Nature*
28. *Proceedings of the National Academy of Sciences*
29. *Photogrammetric Engineering and Remote Sensing*
30. *Remote Sensing of Environment*
31. *Remote Sensing*
32. *Science*

### **3. TEACHING, MENTORING, AND ADVISING**

#### **a. Courses Taught in the Last Six Years**

##### ***i. General***

GEOG 447/442 – Biogeography, Enrollment: 11 students (Fall 2000), 10 Students Fall 2003, 6 Students Fall 2004

GEOG 347 – Introduction to Biogeography, Enrollment: 55 students (Spring 2000), 50 students spring 2002

GEOG 372 – Introduction to Remote Sensing, Enrollment: 45 students (Fall 2001), 27 students (Fall 2002), 42 students Fall 2003, 46 students (Fall 2004), 45 students (Fall 2005), Fall 2007 (48 Students), Fall 2008 (45 Students), Spring 2011 (74 students)

GEOG 472 – Digital Image Processing: 42 students (Spring 2006)

AOSC/GEOG/GEOL 123 – Introduction to Global Climate Change – Spring 2008 (225 students), Spring 2009 (240 students), Spring 2010 (225 students), Spring 2011 (225 students)

##### ***ii. Specialized***

GEOG 498R / 788G -Topical Investigations: Climate Change in the Boreal Forest  
Enrollment: 7 students (Spring 2000)

GEOG498R / 788G -Topical Investigations: Remote Sensing in Boreal Forests  
Enrollment: 10 students (Fall 2000)

GEOG498A – Principals of Remote Sensing, Enrollment: 15 students (Spring 2002), 4 students (Spring 2003)

GEOG619 – Physical Geography Seminar, Enrollment: 6 students (Spring 2004)

GEOG 788G – Global Biogeochemical Cycles, Enrollment 4 students (Spring 2006)

GEOG 788A – Geospatial Methods for Conservation, Enrollment 12 Students (Fall 2009)

GEOG 600 – Introduction to Geography, Enrollment 7 Students (Spring 2011)

GEOG 642 – Ecosystem Processes, Enrollment: 9 Students, (Fall 2011)

**iii. Independent Study, Tutorial, Internship Supervision**

Lauren Urgenson, Independent Study, Spring 2001.  
Lynn Scharf, Internship, Fall 2001  
Robert Adamski, Internship, Fall 2002  
Scott Sherman, Internship, Fall 2002  
Megan Hanshu, Internship, Summer 2004  
Sam Upton, Internship, Summer 2005  
Crescent Moegling, Internship, Summer 2006  
Jerry Marmelstein, Internship, Fall 2006  
Rachel Pozzatti, Internship, Fall 2008, Spring 2009  
Elizabeth Mergehan, Internship, Fall 2009, Spring 2010  
Sarah Halterman, Internship, Fall 2010, Spring 2011

**b. Advising – Other than Research Direction**

I have advised an average of 8 undergraduate students per year on course and curriculum development. I have been the Advisor for the Global Change track of the Environmental Science and policy

**c. Advising – Research Direction**

**i. Undergraduates (hired as research assistants)**

Jacquelynn Reinhardt (summer 2008)  
Lucia Ness (summer 2008)  
Rachel Pozzotti (fall 2008, spring, summer, fall 2009, spring 2010)  
Elizabeth Mergahenn (fall 2009, spring, summer 2010)  
Sarah Halterman (fall 2010, spring 2011)  
Jamar Young (spring 2011, summer 2011)

**ii. Master's**

**At University of Maryland**

Ed Hyre (MA received 8/01)  
Alice McDonald (MA received 12/03)  
Kyle Pittman (MA received 5/04)  
Adrienne Funk (MA received 12/05)  
Melynda Scharf (MA expected 5/05)  
Kathleen Vazolous (MA received 8/05)  
Virginia Gorsevski (MA received 12/05)  
Paul Sabol (MA Received 5/06)  
Elizabeth Hoy (MA Received 5/07)  
Andrew McAtee (MA Received 8/07)  
Nicole Robinson (MA Received 5/11)

*At Duke University*

Eric Haney (MS - 1993)  
Stephanie Fulton (MS - 1997)

*iii. PhD*

*At University of Maryland*

Principal Advisor

Megan Wiener – Entered 8/00, Advanced to Candidacy, January 2003, PhD received August 2004 (Recipient of NASA Earth System Science Fellowship)

Ed Hyre - Entered 8/01, Advanced to Candidacy, May 2002, PhD received August 2004 (Recipient of NASA Earth System Science Fellowship)

Alicia Joseph – Entered 8/04, Advanced to Candidacy Spring 2008, PhD received December 2010.

Virginia Gorsevski – Entered 1/06 (Advanced to Candidacy Fall 2008) (Recipient of NASA Earth and Space Science Fellowship, July 2007)

Elizabeth Hoy (Entered 8/07) (Advanced to Candidacy Spring 2010) (Recipient of NASA Earth and Space Science Fellowship, June 2009)

Tatiana Sofronova (Entered 8/10)

Talya Gulman (Entered 8/11)

*At Duke University*

Katherine O’Neill, Co-Advisor, received PhD Spring 2000 (Recipient of NASA Earth System Science Fellowship, July 1996)

Committee Membership

Khaldoun Rishmawi

Amanda Whitehurst

Christina Kennedy – Dean’s Representative (Dissertation Defense Fall 2009)

Douglass Morton – (Dissertation Defense Fall 2008)

James Jung – Dean’s Representative (Dissertation Defense Spring 2008)

Michael Fromm – Dean’s Representative (Dissertation Defense Spring 2008)

Melissa Songer – (Dissertation Defense Spring 2006)

Louis Giglio – (Dissertation Defense Spring 2005)

Robert Chastain – Dean’s Representative (Dissertation Defense Fall 04)

Steve Walters –Dean’s Representative (Dissertation Defense Fall 2001)

Aditi Shenoy – University of Alaska

Graduate Students - Unofficial

A number of graduate students have conducted research using funding derived from my research grants, although I did not officially serve on their committees. These students include: Peter Harrell - Duke University (MS 1993); Nancy French - University of Michigan (MS – 1994; PhD 2002); Laura Bourgeau-Chavez - University of Michigan (MS - 1995); and Kevin Smith - Duke University (MS 1996).

#### **d. Outside Activities**

***Defense Mapping Agency Short Course*** - In 1984, I wrote an instructional manual for the U.S. Defense Mapping Agency on using imagery radar data to detect and map near-shore bottom features. In conjunction with the writing of this manual, I developed and taught week-long short course to 20 DMA image analysts.

***University of Michigan Summer Short Course*** - In 1987, I co-developed and taught a summer short course at the University of Michigan. The topic of this course was applications using imaging radar systems. I taught about 20% of this week-long course.

***NASA Shuttle Imaging Radar High School Project*** - In the spring of 1994, I established a high school science program with Riverside High School in Durham, North Carolina based on the Shuttle Imaging Radar (SIR-C) program I was directing. Under this project, I taught a series of seminars to approximately 25 to 30 students on the principals of remote sensing and collection of the field data required for our SIR-C experiment. Prior to the SIR-C experiment, the students were organized into teams and assisted in collection of field data from selected stands and deployment of calibration targets. During the actual mission, the students assisted in collecting soil moisture measurements. After the experiment, they assisted in the analysis of data.

***ERIM International- High School Fellowship Program*** - For the past several years (1997 to 1999), ERIM International has awarded summer fellowships to a group of six outstanding high school students from the local community. These students are assigned a project to carryout as part of their fellowship. Four of these students have conducted their fellowship in my department. The projects these students have carried out include: (1) mapping of fire boundaries using ERS SAR imagery; (2) analysis of wetland patterns using multi-date radar imagery; (3) correlation of fire locations in Alaska with geographic variables; and (4) analysis of the influences of smoke on AVHRR/NDVI signatures in boreal regions.

***ERIM - Summer Internship Program*** - I created and directed a summer intern program at the Environmental Research Institute of Michigan from 1989 through 1993. This program provided internship opportunities to foreign university students interested in gaining practical research experience. Students who participated in this program included: University of Karlsruhe (Germany): Volker Zeigler (1989), Dieter Cichon (1990), Ulrich Ambrosey (1992) and Michael Schinke (1992); University of Montreal - Laurent Guigni (1991/1992); and Lisbon University - Iksu Kyun (1993)

#### **4. SERVICE**

##### **a. Professional**

###### ***i. Offices and committee memberships held in professional organizations***

Member, American Geophysical Union – Biogeosciences Section – Member of Advisory Committee (2009-present)

Joint GOFC/GOLD and IGBP-IGAC/BIBEX Working Group on Improving Global Estimates of Atmospheric Emissions from Biomass Burning, 10-12 July 2002, College Park, Maryland, Co-chairman.

IGBP-GAIM-TRACES Fire Working Group, 22-26 October 2002, Isle-sur-la-Sorgue, France.

IGBP-Land Use/Cover Change Millenium Ecosystem Assessment Working Group on Assessment of Areas undergoing Rapid Land-Cover Change, 24-26 November 2002, Washington DC.

GOFC Fire Satellite Validation Working Group, 9-11 July 2001, Lisbon, Portugal.

GOFC Boreal Forest Working Group, 28 August to 1 September 2000, Novosibirsk, Russia. Meeting Organizer and Co-chairman.

IGBP Working Group on Satellite Fire Detection Algorithms - 1993 to 1997.

*ii. Reviewing activities for agencies - proposal peer reviews*

I routinely review individual proposals for the National Aeronautics and Space Administration and the Environmental Protection Agency, and have reviewed proposals for the USDA Forest Service, National Science Foundation, American Association for the Advancement of Science, and National Oceanic and Atmospheric Administration. In addition, I have also served on peer review panels, including the following:

National Aeronautics and Space Administration – Biodiversity and Ecological Forecasting Panel Review, January 2011

National Aeronautics and Space Administration – Earth and Space Sciences Fellowship Panel Review, March 2008

National Aeronautics and Space Administration – EOS Land Remote Sensing Proposal Panel Review, February 2007.

Environmental Protection Agency - Office of Research and Development, National Center for Environmental Research and Quality - Science to Achieve Results (STAR) Student Fellowships, Washington, DC, March 2005.

Environmental Protection Agency - Office of Research and Development, National Center for Environmental Research and Quality - Science to Achieve Results (STAR) Student Fellowships, Washington, DC, March 2004.

National Aeronautics and Space Administration – Solid Earth and Natural Hazards/Dynamics of the Mantle and Crust-Implications for Sea Level Rise –Panel Review, December 2002

National Aeronautics and Space Administration – ESSP Science Proposals - Panel Review, August 2001.

National Aeronautics and Space Administration – Review of Carbon Cycle Science Strategy Proposal for NASA – April 2001

Environmental Protection Agency - Office of Research and Development, National Center for Environmental Research and Quality - Science to Achieve Results (STAR), Washington, DC, May 1999.

National Aeronautics and Space Administration NRA-98-OES-09, Applications in Agriculture, Forestry and Range Resources, Written Review Panel, January 1999

National Aeronautics and Space Administration Global Change Research Fellowship Proposals, College Park, Maryland, July 1999.

National Aeronautics and Space Administration Concepts for Science and Applications Missions in the Post-2002 Era, College Park, Maryland, July 1999.

National Aeronautics and Space Administration Earth Science Information Partnership Proposals, Washington, DC, October 1998.

Environmental Protection Agency - Office of Research and Development, National Center for Environmental Research and Quality - Science to Achieve Results (STAR), Washington, DC, June 1996.

**iii. Other unpaid services to local, state, federal agencies**

Department of Energy Workshop on Climate Change Experiments in High Northern Latitudes, Fairbanks, Alaska, 13-14 October 2010, Invited participant and speaker.

North American Carbon Program, Synthesis on the Impacts of Disturbance on the North American Carbon Program, 2009-present, Organizer.

North American Carbon Program, Disturbance Synthesis Workshop, 28-30 October 2009, Reston, VA. Organizer.

NASA Fire Science Workshop, February 20-22, 2008, College Park, MD. Invited Plenary Speaker

NASA Carbon Cycle & Ecosystems Joint Science Workshop, 28 April – 1 May, 2008, Invited Plenary Speaker.

U.S. Carbon Cycle Scientific Steering Group, U.S. Climate Change Science Program. Member, April 2007 to present.

North American Carbon Cycle Workshop, 20-23 August 2004, Missoula, Montana. Invited participant.

North American Carbon Cycle Workshop, 12-14 May 2003, Washington, DC.

North American Carbon Cycle Workshop, 12-14 May 2003, Washington, DC. Invited participant and session chairman.

North American Carbon Cycle Workshop (to review and develop the U.S. North America Carbon Cycle Science Plan), 5-7 September 2001, Boulder, Colorado. Invited participant.

Member, NASA Ocean Observer Study Team (September 2000 to 2002).

National Research Council's *Review of NASA's Distributed Active Archive System*, August 1998. Invited report reviewer.

Workshop to review the *U.S. Carbon Cycle Science Plan*, National Research Council, Denver, Colorado, July 1998. Invited participant.

U.S. Global Change Research Program Workshop on Regional Implications of Climate Change, National Research Council, Washington, DC, May 1997. Invited participant.

LiteSAR Science Advisory Group (NASA) - 1996 to 2000. Member.

Firesat Science Team (NASA Langley Research Center) - 1995 to 1997. Member.

Workshop on Fire and Carbon Cycling in the North American Boreal Forest, Environmental Protection Agency, Fairbanks, Alaska, September 1995. Chairman.

National Research Council Review on SAR Applications in Ecology - April 1994 to January 1995. Co-Chairman.

TAIGA Planning Working Group (NASA) - May 1993 to April 1994. Co-Chairman

NASA Polar DAAC Advisory Group - 1991 to 1995. Member.

NASA Land DAAC Advisory Group - 1991 to 2000. Alternate member.

**iv. Other non-University committees, commissions, organizations**

Working Group on Mapping Fire Severity in the Boreal Forest (Co-Organizer with N. French of Michigan Tech). This working group met on a semi-annual basis between 2005 and 2007 to

coordinate studies being carried out by researchers with the Canadian Forest Service, U.S. National Park Service, Fish and Wildlife Service, Bureau of Land Management, and the Universities of Alaska, Maryland, and Saskatchewan, Michigan Tech, and Michigan State University.

Arctic Monitoring and Assessment Program – Carbon Workshop, Seattle, Washington, 27-28 February 2007. Invited participant.

Scientific Steering Committee, Special Interest Group on Forest Fires, European Association of Remote Sensing Laboratories, Member, 2005 to present.

Global Forest Watch Workshop on Mapping of Alaskan Forests, 14-15 November 2002, Anchorage, Alaska, Invited Participant.

Program Committee for the Second International Conference on Agriculture and Forestry (January 2000).

*v. International activities not listed above*

**b. Campus**

*i. Departmental*

Graduate Director (June 2003 to May 2006)

Committee Memberships – Facilities (2000 to 2002); Graduate (2000 to 2006); Research (2000 to 2002), Review Committee (spring 2003); Graduation Committee (Spring 2003), Teaching Committee (2004 to present)

Committee Chairmanships – Facilities (2000 to 2002); Graduate (2002 to 2003); Undergraduate Committee (2007-present); GIS Program Advisory Committee (2009-present)

*ii. College*

Member of Computing Policy Advisory Committee (September 2000 to present), Member of Program Curriculum Course Committee (January 2002 to present)

*iii. University*

Chair, University Senate, 2010

Member, President's Commission on Intercollegiate Athletics, Fall 2011

Member, Joint Merger Task Force, Fall 2011

Ex Officio Member, College Park Foundation, June 2010 to May 2011

Member, Vice President of Administration Search Committee, May/June 2011

Chair Elect, University Senate, 2010-2011 Academic Year

Member, Senate Executive Committee, 2010-2011 Academic Year

Member, Facilities Council, 2010-2011 Academic Year

Member, Library Council, 2010-2011 Academic Year

Member, Academic Policy and Advisory Council, 2010-2011 Academic Year

Chair, Joint Senate/Office of the President Task Force to Review Policy on Merit Pay Review, November 2009/2010 Academic Year

Chair, Faculty Affairs Committee, August 2009/2010 Academic Year

Member, BSOS Dean's Search Committee, May/June 2009

Member, University Senate, August 2008 – August 2010

Member, Faculty Affairs Committee, 2008-2009 Academic year

Member, University Appointment, Promotion, and Tenure Committee, January 2008 – December 2010.

Member of Committee to Review Indirect Charges for Fabricated Equipment, November/December 2000.