

Curriculum Vitae
Ronald L. Baskett
Senior Advisor
EnviroComp Consulting, Inc.



SUMMARY

Ron is a nationally recognized expert at determining the health effects and environmental consequences of accidental releases to the atmosphere. Employing complex dispersion models in combination with air concentration measurements, he has responded to over 100 real-world incidents and interacted with over 250 local, state, and federal agencies nationwide. The incidents include a wide variety of industrial chemical spills, explosions, and fires as well as releases from nuclear facilities. Ron has supported US Government responses to international incidents such as the 2011 Fukushima and 1986 Chernobyl Nuclear Power Plant accidents, the 1991 Desert Storm events, and the massive Kuwaiti oil fires. During his career Ron has also managed more than three dozen projects involving air quality impacts from new industrial developments. His research interests include forensic determination of unknown factors associated with atmospheric releases, dispersion model evaluation, mesoscale forecasting, and mountain meteorology. He has engaged extensively in state and national working groups and technical forums. Ron earned professional certification by the American Meteorological Society in 1983 and currently serves on the national board of Certified Consulting Meteorologists (CCMs). Over the years he has provided expert advice in litigation involving the hazards of accidental atmospheric releases.

Expertise

- Four decades experience leading groups and managing scientific and technical projects in the atmospheric sciences and related disciplines
- Extensive supervisory experience
- Broad interaction with state and federal agencies and private industry
- Technical specialties:
 - Assessing the health effects and consequences of atmospheric releases involving chemical, biological, radiological, and nuclear releases to the atmosphere
 - Atmospheric dispersion modeling and model evaluation studies
 - Forensic analysis of complex accidental atmospheric releases
 - Receptor-oriented and source reconstruction methods
 - Weather Research and Forecasting (WRF) and mesoscale modeling
 - Boundary layer, satellite, mountain, urban, forensic, and agricultural meteorology
 - Air quality modeling and permitting
 - Aerosol physics
 - Fugitive dust and resuspension
 - Wind and solar energy studies
 - Meteorological and remote sensing systems
 - Health physics and industrial hygiene

Professional Employment

Atmospheric Scientist (1995-present)

Physical and Life Sciences Directorate, Lawrence Livermore National Laboratory, Livermore, CA

- **Deputy Division Leader for Operations, [Atmospheric Earth and Energy Division](#)** (2013-present)
- **Group Leader** (2009-2013); **Deputy Group Leader** (2003-2008)
- **Principal Investigator or co-Investigator** for multiple research projects in dispersion modeling, wind energy forecasting, and federal emergency preparedness
- **[Director of Operations and Operations Team Leader](#)** (1996-2009) for the [National Atmospheric Release Advisory Center](#) and the Interagency Modeling and Atmospheric Assessment Center
Led training, outreach, exercise planning and support, and emergency response for 2,500 users in 250 local, state, and federal organizations
- **Response Manager** (1996-2011) for over 100 emergencies involving modeling the dispersion of hazardous releases to the atmosphere including the 2011 Las Conchas Fire, NM; the 2011 Fukushima Nuclear Power Plant accident, Japan; the 1998 Tracy & 1999 Westley, CA tire fires; the 1997 Tokai, Japan nuclear fuels; the 1997 Algeciras, Spain Cs-137 accidents; many National-Level Exercises including the Top Official series; and numerous National Special Security Events.

Scientific Specialist II and Deputy Group Leader (1983-1995)

EG&G Energy Measurements, Inc., Pleasanton, CA - Contractor to LLNL

- Assisted managing a group of 12 atmospheric & computer scientists
- Supported emergency preparedness and response for federal and state agencies including responses to the 1991 metam sodium spill into Sacramento River, Desert Storm, and Kuwaiti oil fire responses, and the 1986 Chernobyl accident
- Managed NARAC Customer Support team for with over 1000 users in 100 agencies
- Tested and evaluated NARAC models against field tracer studies
- Designed and implemented software for the NARAC emergency response system

Manager, Air Quality Modeling Group (1982-1983)

PLT International, Inc., Denver, CO

- Developed and implemented the Nuclear Regulatory Commission NUREG 0654 emergency response system for the Fermi 2 Nuclear Power Plant
- Conducted studies on fugitive dust and wood burning smoke in complex terrain

Assistant Manager, Atmospheric Sciences Department (1980-1982)

Environmental Sciences Division, Camp Dresser & McKee, Denver, CO

- Assisted in the management and career development of 15 atmospheric and computer scientists
- Principal Investigator for 12 air quality projects for mining, oil shale, oil refining, and coal-fired power plants in the Rocky Mountain States including a major tracer and dispersion model evaluation study and environmental impact statement for the largest proposed molybdenum mine and mill in Colorado's history

Staff Meteorologist and Section Manager (1976-1980)

Environmental Research & Technology, Inc., Westlake Village, CA

- Managed a group of 6 dispersion meteorologists
- Principal scientist or investigator for 30 air quality monitoring, modeling, and local, state, and federal permitting projects for mining, electric power, and petroleum industries
- Principal research meteorologist for nationwide aerosol characterization studies including the Electric Power Research Institute Sulfate Regional Experiment (SURE)

Scientist (1975-1976)

Lockheed Electronics Co., Johnson Space Center, Houston, TX

- Developed and implemented a phenological model for the NASA-USDA-NOAA Large Area Crop Inventory Experiment to predict worldwide wheat production

Education

M.S. in Atmospheric Science, University of California at Davis (1976)
Thesis: Air Quality Determinations in the Yosemite Valley, California Airshed
B.S. in Atmospheric Science, University of California at Davis (1972)

Professional Memberships

American Meteorological Society	1970-present
American Nuclear Society	1983-present
Air & Waste Management Association (formerly Air Pollution Control Association)	1978-1990

Professional Certification

American Meteorological Society Certified Consulting Meteorologist #346	1983-present
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Working Groups and Committees

Board of the American Meteorological Society Certified Consulting Meteorologists	2014-present
Nuclear Utilities Meteorological Users Group member and host for List Serve	1990-present
US Federal Radiological Monitoring and Assessment Center (FRMAC) member of Operations and Assessment Working Groups	1989-2012
US DOE Emergency Manager's Issues Special Interest Group (EMI SIG) member	1989-2012
US DOE EMI SIG Subcommittee on Consequence Assessment and Protective Actions member and former Committee chair of Source Term Working Group	1989-2012
US DOE Accident Response Group member	1990-2009
Bay Area Terrorism Working Group member	1995-2010
US DOE Meteorological Coordinating Committee (DMCC) member	1995-present
American Nuclear Society ANS/ANSI 3.11 Standard for Determining Meteorological Information at Nuclear Facilities – Contributing Author	1999-present
US DOE Consequence Management Core Working Group member	2000-2010
California Air Response Planning Alliance member	2004-present
California Air Response Planning Alliance Executive Committee	2000-2004
US Department of Homeland Security Working Group on Radiological Dispersal Device/Improvised Nuclear Device Preparedness (RDD/IND) member	2003-2004
US Department of Homeland Security IMAAC Technical Working Group member	2004-2010
American Nuclear Society Environmental Sciences Division Executive Committee	1997-2000
ANS Sixth Topical Meeting on Emergency Preparedness and Response, Co-Chair	1997
AMS Western Region Board of Certified Consulting Meteorologists	1995-1997
AMS Workshop on Mesonets, Chair	1996
Bay Area Mesonet Initiative, Chair	1995-1998
USAF Toxic Release Advisory Group member	1995-1997
US DOE Nuclear Emergency Search Team member	1995-2000
US DOE Accident Phenomena and Consequence Working Group member	1995-1998
LLNL Nuclear Incident Response Program member	1991-2000
LLNL Public Affairs Office Speakers Bureau; Community and Educational Outreach, Science on Saturday, and Expanding Your Horizons Programs	1987-present

Summary of Publications

- 8 Journal Articles
- 2 Books
- 6 Book Chapters
- 2 Technical Standards
- 63 Conference Papers
- 8 Invited Talks
- 36 Technical Reports and Manuals

Publications – Journal Articles

1. Mirocha, J. D., M. D. Simpson, J. D. Fast, L. K. Berg, and R. L. **Baskett**. 2015. Investigation of lower-atmospheric wind predictions during low-level jet events using the Weather Research and Forecasting model. *Wind Energy*, online at DOI: 10.1002/we.1862.
2. Nasstrom, J.S., G. Sugiyama, R.L. **Baskett**, S.C. Larsen, and M.M. Bradley. 2006. The NARAC modeling and decision support system for radiological and nuclear emergency preparedness and response, *Intl. J. Emergency Management* **4 (3)**: 524-550. Also: <http://www.osti.gov/scitech/biblio/902613>
3. Craig, D.K., R.L. **Baskett**, J.S. Davis, L.L. Dukes, D.J. Hansen, A.J. Petrocchi, T.J. Powell, P.J. Sutherland, T.E. Tuccinardi, Jr. 1999. Recommended default methodology for analysis of airborne exposures to mixtures of chemicals in emergencies. *Appl. Occup. & Envr. Hygiene* **14 (9)**: 609-617.
4. Sullivan, T.S, J.S. Ellis, C.S. Foster, K.T. Foster, R.L. **Baskett**, J.S. Nasstrom, W.W. Schalk, III. 1993. Atmospheric Release Advisory Capability: Real-time modeling of airborne hazardous materials. *Bull. Amer. Meteor. Soc.* **74**: 2343-2361.
5. Mueller, P. K., G.M. Hidy, K.K. Warren, T.F. Lavery, and R.L. **Baskett**. 1980. The occurrence of atmospheric aerosols in the northeastern United States. *Annals of the New York Academy of Sciences* **338**: 463-482.
6. Carroll, J. J. and R.L. **Baskett**. 1979. Dependence of air quality in a remote location on local and mesoscale transports: A case study. *J. Appl. Meteor.* **18**: 474-486.
7. Morgan, D.L., L.O. Myrup, D. Rogers, and R.L. **Baskett**. 1977. Microclimates within an urban area. *Annals of Assoc. of American Geographers* **67 (1)**: 55-65.
8. Morgan, D.L. and R.L. **Baskett**. 1974. Comfort of man in the city: An energy balance model of man-environmental coupling. *Intl. J. Biometeorology* **18**: 184-198.

Publications – Books

1. **Baskett**, R.L. 1983. *Fugitive Dust Emission Factors for the Mining Industry*. American Mining Congress, Washington, DC.
2. P.K. Mueller, G.M. Hidy, R.L. **Baskett**, K.K. Fung, R.C. Henry, T.F. Lavery, N.J. Nordi, A.C. Lloyd, J.W. Thrasher, K.K. Warren, J.G. Watson. 1983. *Sulfate Regional Experiment (SURE): Report of findings*. Electric Power Research Institute.

Publications – Book Chapters

- 1-4. **Baskett**, R.L. 2002-2005. Chapter on Lawrence Livermore National Laboratory in *The Federal Plan for Meteorological Services and Supporting Research*. Office Fed. Coord. Meteorology, Washington, DC.
5. Ellis, J.S. and R.L. **Baskett**. 2001. National Atmospheric Release Advisory Center. Chapter in *Nuclear Weapons Accident Response Procedures Manual*. Defense Threat Reduction Agency.
6. Sullivan, T.J., J.S. Ellis, C.S. Foster, K.T. Foster, R.L. **Baskett**, J.S. Nasstrom, and W.W. Schalk, III. 1992. Modeling of air currents in the Gulf region. *Chapter 4. The Gulf War and the Environment*, F. E1-Baz and R.M. Makharita, Ed., Gordon and Breach Science Publishers S.A., World Trade Center, Case postale 531, 1000 Lausae 30 Grey, Switzerland; also LLNL UCRL-JC-110365. <http://www.osti.gov/scitech/biblio/10154384>

Publications – Technical Standards

1. American Nuclear Society (ANS) ANS-2.16 Criteria for Modeling Design-Basis Accidental Releases from Nuclear Facilities, 2015, author team.

2. American National Standards Institute (ANSI) & American Nuclear Society (ANS) ANSI/ANS-3.11 American National Standard for Determining Meteorological Information at Nuclear Facilities, 2005, 2015, author team.

Publications – Conference Papers

1. Lucas, D.D., Simpson, M.D., Johansson, G., Cameron-Smith, P.J., & **Baskett**, R.L. 2015. Meteorological Uncertainty on Source Estimation in Complex Coastal Terrain. *19th Annual Conference on Atmospheric Transport and Dispersion Modeling*, George Mason Univ. Fairfax, VA. LLNL-PRES-672178.
2. Lucas, D.D., Gowardhan, A., Johansson, G., Cameron-Smith, P.J., & **Baskett**, R.L. 2014. Atmospheric Source Estimation with Uncertainty Quantification for Urban Scales. *18th Annual Conference on Atmospheric Transport and Dispersion Modeling*, George Mason Univ. Fairfax, VA. LLNL-PRES-656016.
3. Scott, Randall E., John M. Phillips, Dirk Cairns-Gallimore, Steven G. Homann, and Ronald L. **Baskett**. Technological Advances in Radiological Contingency Planning for the 2011 Mars Science Lab Mission. 2012. *Proceedings of American Nuclear Society Nuclear and Emerging Technologies for Space 2013*, Albuquerque, NM, February 25-28, 2013. [LLNL-CONF-597012](http://www.osti.gov/scitech/biblio/1073114). <http://www.osti.gov/scitech/biblio/1073114>
4. Sugiyama, G., J.S. Nasstrom, B.M. Pobanz, K.T. Foster, M.D. Simpson, P.J. Vogt, F.A. Aluzzi, M.D. Dillon, and R.L. **Baskett**. 2011. NARAC Support during the Response to the Fukushima Dai-ichi Nuclear Power Plant Emergency. *American Meteorological Society 17th Joint Conference on the Applications of Air Pollution Meteorology and 10th Symposium on the Coastal Environment*, New Orleans, LA, January 22-26, 2012.
5. **Baskett**, R.L., Sugiyama, G., J.S. Nasstrom, and B.M. Pobanz. 2010. Interagency Modeling and Atmospheric Assessment Center (IMAAC) Support for Airborne Emergencies, *2010 California Air Response Planning Alliance (CARPA) Training Summit*, Sacramento, CA, December 14, 2010. LLNL-ABS-463213.
6. Sugiyama, G., J.S. Nasstrom, R.L. **Baskett**, and M.D. Simpson. 2010. National Atmospheric Release Advisory Center Capabilities for Homeland Security. *Fifth International Symposium on Computational Wind Engineering*, Chapel Hill, NC, May 23-27, 2010. LLNL-CONF-425248. <http://www.osti.gov/scitech/biblio/992759>
7. Sugiyama, G., J.S. Nasstrom, and R.L. **Baskett**. 2008. Advances in NARAC/IMAAC Consequence Assessment Modeling of Airborne Hazards. *Health Physics Society, 53rd Annual Meeting*. Pittsburgh, PA, July 13-17, 2008. LLNL-ABS-401203.
8. **Baskett**, R.L., G. Sugiyama, J.S. Nasstrom, and B.A. Davis. 2007. The Interagency Modeling and Atmospheric Analysis Center, *DHS National BioWatch Workshop*, Chicago, IL. LLNL UCRL-POST-233905.
9. Nasstrom, J.S., G. Sugiyama, R.L. **Baskett**, and R.D. Aines. 2006. National Multi-agency Support for Airborne Hazard Prediction, American Nuclear Society *2006 International Joint Topical Meeting: Sharing Solutions for Emergencies and Hazardous Environment*. Salt Lake City, UT, February 12-15, 2006. <http://www.osti.gov/scitech/biblio/889980>
10. Sugiyama, G., J.S. Nasstrom, and R.L. **Baskett**. 2004. Operational Systems for Emergency Preparedness and Response, invited talk for the *Symposium on Planning, Nowcasting and Forecasting in the Urban Zone, 84th AMS Annual Meeting*, Seattle, WA, January 11-15, 2004. LLNL UCRL-CONF-200951, UCRL-PRES-201805. <http://www.osti.gov/scitech/biblio/15013783>
11. Sugiyama, G., J.S. Nasstrom, R.L. **Baskett**, and J.E. Tull. 2003. NARAC Operational Capability for Urban Preparedness and Response. *American Meteorological Society 84th Annual Meeting, Symposium on Planning, Nowcasting, and Forecasting in the Urban Zone*. Seattle, WA, January 11-15, 2003. LLNL UCRL-CONF-200951. <http://www.osti.gov/scitech/biblio/15013783>
12. Nasstrom, J.S., R.L. **Baskett**, J.S. Ellis, and Ermak, D.J. 2003. Multi-agency Support for the TOPOFF2 Exercise by the National Atmospheric Release Advisory Center (NARAC). *American Nuclear Society Intl. Winter Meeting*, New Orleans, LA, November 16-20, 2003. LLNL UCRL-JC-153904-ABS.
13. **Baskett**, R.L. 2003. The Local Integration of the National Atmospheric Release Advisory Center's Tools and Services with the City of Albuquerque. *Homeland Security Combating Terrorism Conference*, Albuquerque, NM, October 27-31, 2003. LLNL UCRL-JC-155295-ABS.
14. Nasstrom, J.S., J.S. Ellis, G. Sugiyama, R.L. **Baskett**, J.E. Tull, and D.J. Ermak. 2003. National Atmospheric Release Advisory Center Tools and Services for Emergency Management. *Off-site Nuclear Emergency Management: Capabilities and Challenges International Symposium*, Salzburg, Austria, September 29 –October 3, 2003. LLNL UCRL-JC-152234-ABS.
15. **Baskett**, R.L. 2003. Atmospheric Transport and Dispersion Modeling Support for Homeland Security. George Mason University, Fairfax, VA, June 19, 2004. UCRL-PRES-153912-1.

16. **Baskett**, R.L. 2002. DOE Emergency Planning and Response Assets – Atmospheric Modeling. *AWMA & ACHMM Environmental Security after 9-11*. San Francisco, CA, August 22, 2002.
17. **Baskett**, R.L., Aluzzi, F.J., Bowen, B.M., C.S. Foster, J.S. Nasstrom, B.M. Pobanz, and P.J. Vogt. 2002. Multi-agency Utilization of the National Atmospheric Release Advisory Center. *Amer. Nucl. Soc. Annual Meeting*, Washington, DC. LLNL UCRL-JC-149004-EXT-ABS.
18. Nasstrom, J.S., W. Rhodes, J. Fulton, F. Harper, W. Wente, J.S. Ellis, J.S. Tull, K.T. Foster, R.L. **Baskett**, G. Sugiyama, S.G. Homann, and B.R. Buddemeier. 2002. LLNL and SNL Dispersion Modeling and Assessment Tools. *American Nuclear Society Winter Meeting*, Washington, DC, November 18-21, 2002.
19. **Baskett**, R.L. 2000. NARAC Internet and Web Technologies for the Radiological Assistance Program. DOE Regional Response Coordinator Conference. Albuquerque, NM. November 13-15, 2000.
20. Vogt, P.J., B.M. Pobanz, F.J. Aluzzi, R.L. **Baskett**, and T.J. Sullivan. 1999. ARAC simulation of the Algeiras, Spain steel mill Cs-137 release. *Amer. Nucl. Soc. 7th Topical Meeting on Emergency Preparedness & Response*. Santa Fe, NM, September 14-17, 1999. <http://www.osti.gov/scitech/biblio/15013432>
21. Ellis, J.S. and R.L. **Baskett**. 1999. The National Atmospheric Release Advisory Center at Lawrence Livermore National Laboratory. *The International Association of Emergency Managers (IAEM) Annual Meeting*, Louisville, KY.
22. **Baskett**, R.L. and J.C. Pace. 1999. ARAC's radiological support of the Cassini launch. *Midyear Meeting Health Physics Society*, Albuquerque, NM, January 24-27, 1999. UCRL-JC-131723. <http://www.osti.gov/scitech/biblio/3418>
23. Pace, J.C., J.R. Albritton, R.L. **Baskett**, X.J. Zhang, M.C. Masonjones, N.A. Moussa. Modeling the 17 January 1997 Delta-II Explosion by ARAC, ADORA, and REEDM. 1999. *Proceedings of the 10th Joint Conf. on Appl. of Air Poll. Meteor.*, Amer. Meteor. Soc & Air and Waste Mgmt. Assoc., Phoenix, AZ, January 11-16, 1999.
24. **Baskett**, R.L. 1998. ARAC-3 and CB Capabilities. DOE Emerg. Mgmt. Advisory Comm. (EMAC) Subcommittee on Consequence Assessment and Protective Actions (SCAPA) meeting, Aberdeen Proving Ground, MD, October 28-29, 1998.
25. Ellis, J.S., R.L. **Baskett**, and T.J. Sullivan. 1998. Dose Refinement: ARAC's Role. *Environmental Protection Agency Post-Emergency Response Issues Conference*, Washington, DC, September 9-11, 1998. LLNL UCRL-JC-129935.
26. **Baskett**, R.L. Use of ARAC on the DOE Emergency Communications Network (ECN). ECN User's Group Meeting, Remote Sensing Lab, Las Vegas, NV, April 15, 1998.
27. **Baskett**, R.L. 1998. Meteorological Monitoring and Data, Short Course on Air Pollution Meteorology. Amer. Meteor. Soc., Phoenix, AZ, January 11, 1998, 16 pg.
28. **Baskett**, R.L., R.L. Lee, W.A. Nuss, R.D. Bornstein, D.W. Reynolds, T. Umeda, F.L. Ludwig, 1998. The Bay Area Mesonet Initiative (BAMI): A cooperative effort to develop and operate a real-time mesoscale network in the greater San Francisco and Monterey Bay Areas. *Second Conf. on Coastal Atmos. & Oceanic Prediction and Processes*, Amer. Meteor. Soc., Phoenix, AZ, January 11-16, 1998.
29. Craig, D.K., **Baskett**, R.L. et al. 1997. Comprehensive default methodology for the analysis of exposures to mixtures of chemicals accidentally released to the atmosphere. 1996 annual meeting of the energy facility contractors group computer aided design/computer aided engineering facilities users' group, Irvine, CA. WSRC-MS--97-0395; <http://www.osti.gov/scitech/biblio/505312>
30. Gouveia, F.J. and R.L. **Baskett**. Evaluation of a new sonic anemometer for emergency response applications. 1997. *Sixth Topical Meeting on Emergency Preparedness and Response*. San Francisco, CA, April 22-25, 1997. LLNL UCRL-JC-126762. <http://www.osti.gov/scitech/biblio/496241>
31. **Baskett**, R.L., M.D. Blair, C.S. Foster, and A.G. Taylor. 1997. The Expansion of ARAC for Chemical Releases. *Sixth Topical Meeting on Emergency Preparedness and Response*. San Francisco, CA, April 22-25, 1997. LLNL UCRL-JC-125152. <http://www.osti.gov/scitech/biblio/314078>
32. Bradley, M.M, J.S. Ellis, K.T. Foster, and R.L. **Baskett**. 1996. ARAC: A Unique Command and Control Resource. *1996 Command and Control Research and Technology Symposium*, Monterey, CA, June 25-28, 1996. LLNL UCRL-JC-123357. <http://www.osti.gov/scitech/biblio/230359>
33. **Baskett**, R.L., R.L. Lee, J. R. Albritton, J.S. Nasstrom, J.M. Leone, Jr., G.A. Sugiyama, H. Walker, and D.A. Sumikawa. 1996. ARAC III: Next Generation ARAC System. *Fourth Nuclear Utilities Meteorological Data Users Group Meeting*, San Francisco, CA, April 24-26, 1996.
34. Pace, J. C., B.M. Pobanz, C.S. Foster, R.L. **Baskett**, P.J. Vogt, and W.W. Schalk. 1996. Evaluation of ARAC's participation in a long-range tracer experiment. *Preprints 9th Joint Conf. on Appl. of Air Poll. Meteorology*. Air

- & Waste Mgmt. Assoc. and Amer. Meteor. Soc. Atlanta, GA, January 28-February 2, 1996.
<http://www.osti.gov/scitech/biblio/422899>
35. Albritton, J.R., R.L. Lee, G. Sugiyama, and R.L. **Baskett**. 1996. Modeling the wind-fields of accidental releases with an operational regional forecast model. *9th Joint Conf. on Appl. of Air Poll. Meteorology*. Air & Waste Mgmt. Assoc. and Amer. Meteor. Soc. Atlanta, GA, January 28-February 2, 1996.
<http://www.osti.gov/scitech/biblio/134994>
 36. Gouveia, F.J. and R.L. **Baskett**. 1996. Comparison of data from co-located sensor packages and implications for dispersion modeling: An in situ case study of rugged versus low-threshold anemometers and natural-versus forced-ventilation solar shields, *Nuclear Utility Meteor. Data Users Group Workshop*, San Francisco, CA, April 25, 1996. LLNL UCRL-JC-123717. <http://www.osti.gov/scitech/biblio/230630>
 37. **Baskett**, R.L. 1996. Use of ARAC's National Response Center for Toxic Chemical Releases, *1996 Virginia Hazardous Materials Conference*, Virginia Beach, VA, September 26-28, 1996.
 38. **Baskett**, R.L., Pace, J.C., C.S. Foster, W.W. Schalk, and B.M. Pobanz. 1995. ARAC support of 1995 Vandenberg AFB launches. *JANNAF Propulsion and Subcommittee Joint Meeting*, Tampa, FL, December 4-8, 1995. LLNL UCRL-JC-120662-ABS.
 39. Daniels, J. I. and R.L. **Baskett**. 1995. Recommended launch-hold criteria for protecting public health from hydrogen chloride gas produced by rocket exhaust. Joint Army, Navy, NASA, Air Force (JANNAF) Safety and Environ. Protection Meeting, December 5-8, 1995, Tampa, FL. The Johns Hopkins University Chemical Propulsion Information Agency, Columbia, MD, *CPIA Publication N^o. 634*, pp. 1-10.
<http://www.osti.gov/scitech/biblio/208316>
 40. Pace, J.C.; Pobanz, B.M.; Foster, C.S.; Baskett, R.L.; Vogt, P.J.; Schalk, W.W. III (Aug. 1995) [Evaluation of ARAC's participation in a long-range transport experiment](#) *AMS/AWMA Ninth Joint Conference Applications of Air Pollution Meteorology*, Jan 28-Feb 2, 1996. Atlanta, GA. LLNL UCRL-JC-121047.
<http://www.osti.gov/scitech/biblio/110781>
 41. Pace, J.C., T.J. Sullivan, R.L. **Baskett**, J.S. Ellis, C.S. Foster, K.T. Foster, J.S. Nasstrom, B.M. Pobanz, W.W. Schalk, III, and P.J. Vogt. 1995. ARAC: A support capability for emergency managers. *NEMA Emergency Management Information Technology Conference*, Weather Mountain Facility, Berryville, VA, August 22-24, 1995. <http://www.osti.gov/scitech/biblio/105000>
 42. **Baskett**, R.L., P.J. Vogt, W.W. Schalk, III, C.S. Foster, and J.S. Ellis, 1994. The Challenge of emergency response dispersion models on the meso-gamma urban scale: A case study of the July 26, 1993 oleum tank car spill in Richmond, California. *ANS Fifth Topical Meeting on Emergency Prepared. & Response*, April 18-21, 1994, Savannah, GA. LLNL UCRL-JC-118082. DOI: [10.2172/10137425](https://doi.org/10.2172/10137425)
<http://www.osti.gov/scitech/biblio/10114145>
 43. **Baskett**, R.L., T.J. Sullivan, J.S. Ellis, and C.S. Foster. 1994. The role of ARAC in a FRMAC response at a nuclear power plant incident. *Proceedings of the Nuclear Utilities Meteorological Users Group Workshop*, Charlotte, NC, October 20-21, 1994. LLNL UCRL-JC-115998. <http://www.osti.gov/scitech/biblio/10114991>
 44. **Baskett**, R.L., J.S. Ellis and T.J. Sullivan. 1994. Real-time modeling of complex atmospheric releases in urban areas. *Proceedings of the International Workshop on the Scientific Bases for Decision Making after a Radioactive Contamination of an Urban Environment*, Comissao Nacional de Energia Nuclear, Rio de Janeiro, August 29-30, 1994. LLNL UCRL-JC-115998. <http://www.osti.gov/scitech/biblio/10178717>
 45. Lawver, B.S., J.M. Sims, and R.L. **Baskett**. 1993. A real-time monitoring/emergency response modeling workstation for a tritium facility. Chicago, IL: Amer. Nucl. Soc. 1993 Winter Meeting, San Francisco, CA, November 14-18, 1993.
 46. Lawver, B.S., J.M. Sims, and R.L. **Baskett**, 1993. A real-time monitoring/emergency response modeling workstation for a tritium facility. Chicago, IL: Amer. Nucl. Soc. *Proc. of the ANS Topical Meeting on Environmental Transport and Dosimetry*, Charleston, SC, September 1-3, 1993.
 47. Ellis, J.S., C.S. Foster, K.T. Foster, T.J. Sullivan, R.L. **Baskett**, J.S. Nasstrom, and W.W. Schalk III. 1993. Kuwait smoke plume: Large regional scale dispersion modeling. Chicago, IL: Amer. Nucl. Soc. *Proc. of the ANS Topical Meeting on Environmental Transport and Dosimetry*, Charleston, SC, September 1-3, 1993.
 48. Foster, K.T., D.A. Sumikawa, C.F. Foster, and R.L. **Baskett**. 1993. The Atmospheric Release Advisory Capability new site workstation system. Chicago, IL: Amer. Nucl. Soc. *Proc. of the ANS Topical Meeting on Environmental Transport and Dosimetry*. Charleston, SC, September 1-3, 1993.
<http://www.osti.gov/scitech/biblio/10150295>

49. **Baskett**, R.L., J.S. Nasstrom, and R.P. Freis. 1993. Evaluation of the Atmospheric Release Advisory Capability emergency response model for explosive sources. Bruxelles, Netherlands: North Atlantic Treaty Org. *Proc. of the 20th Intl. NATO/CCMS Intern. Tech. Meeting on Air Poll. Modeling and its Appl.*, Valencia, Spain, November 9-December 3, 1993. LLNL UCRL-JC-115085. <http://www.osti.gov/scitech/biblio/140176>
50. Lawver, B.S., T.J. Sullivan, and R.L. **Baskett**. 1993. A real-time emergency response workstation using a 3-D numerical model initialized with sodar. Pittsburgh, PA: Air & Waste Mgmt. Assoc. *Proc. of the Role of Meteorology in Managing the Environment in the '90s*, Scottsdale, AZ. <http://www.osti.gov/scitech/biblio/10172172>
51. **Baskett**, R.L., J.S. Nasstrom, J.J. Watkins Jr., J.S. Ellis, and T.J. Sullivan. 1992. Atmospheric modeling of the July 1991 metam sodium spill into California's Upper Sacramento River. Pittsburgh, PA: Air & Waste Mgmt. Assoc. *Proc. of the 85th Annual Mtg. of the Air & Waste Mgmt. Assoc.* Paper 92-155.01., Kansas City, MO, June 22-26, 1992. LLNL UCRL-JC-1098035.
52. Ellis, J.S., C.S. Foster, K.T. Foster, T.J. Sullivan, R.L. **Baskett**, J.S. Nasstrom, W.W. Schalk, III, and G.D. Greenly. 1992. Daily dispersion model calculations of the Kuwait oil fire smoke plume. Pittsburgh, PA: Air & Waste Mgmt. Assoc. *Proc. of the 85th Annual Mtg. of the Air & Waste Mgmt. Assoc.* Paper 92-76.05, Kansas City, MO, June 22-26, 1992. LLNL UCRL-JC-109830.
53. **Baskett**, R.L. and R. T. Cederwall. 1991. Sensitivity of numerical dispersion modeling to explosive source parameters. Pittsburgh, PA: Air & Waste Mgmt. Assoc. *Proc. of the 84th Annual Mtg. of the Air & Waste Mgmt. Assoc.* Paper 91-86.5, Vancouver, B.C. June 16-21, 1991. <http://www.osti.gov/scitech/biblio/5898311>
54. **Baskett**, R.L., J.S. Nasstrom, and R. Lange. 1990: Emergency response model evaluation using Diablo Canyon Nuclear Power Plant Tracer Experiment. Bruxelles, Netherlands: North Atlantic Treaty Org. *Proc. of the 18th Intl. NATO/CCMS Tech. Mtg. on Air Poll. Modeling and its Appl.*, Vancouver, B.C.
55. **Baskett**, R.L., J.S. Nasstrom, and R. Lange. 1990. The value of on-site sodars versus nearest radiosonde soundings in regional emergency response modeling. Pittsburgh, PA: Air & Waste Mgmt. Assoc. *Proc. of the 83rd Annual Mtg. of the Air & Waste Mgmt. Assoc.* Paper 90-85.3, Pittsburgh, PA, June 24-29, 1990. UCRL-JC-103433.
56. **Baskett**, R.L. and C.S. Mitchell. 1989. Evaluation of an emergency response model with instantaneous air concentrations during stable conditions. Chicago, IL: *Amer. Nucl. Soc. 1989 Winter Meeting*. San Francisco, CA, November 26-30, 1989.
57. **Baskett**, R.L. 1984. Structured analysis techniques applied to the design of a national emergency response system. Pittsburgh, PA: Air Poll. Control Assoc. *Proc. of the 77th Annual Mtg. of the Air Poll. Control Assoc.* Paper 84-14.8. San Francisco, CA, June 24-29, 1984.
58. Lavery, T.F., R.L. **Baskett**, J.W. Thrasher, N.J. Lordi, A.C. Lloyd, and G.W. Hidy. 1983. Development and evaluation of a regional model to simulate atmospheric concentrations of sulfur dioxide and sulfate. Boston, MA: Amer. Meteor. Soc. *Preprints of the 3rd Joint Conf. on Appl. in Air Poll Meteorology*. March 22-25, 1983.
59. **Baskett**, R.L. and M.J. Asoian. 1982. Comparisons of modeling techniques in mountain valleys. Boston, MA: Amer. Meteor. Soc. *Preprints of the 3rd Joint Conf. on Appl. in Air Poll. Meteorology*, San Antonio, TX, January 11-15, 1982.
60. **Baskett**, R.L., L. Rogers and R.A. Nelson. 1981. Evaluations of IMPACT and VALLEY models for low-level releases in Colorado mountain valleys. Boston, MA: Amer. Meteor. Soc. *Preprints of the 2nd Conf. on Mountain Meteorology*, Steamboat Springs, CO, November 9-12, 1981.
61. Lavery, T.F., R.L. **Baskett**, J.W. Thrasher, N.J. Lordi, A.C. Lloyd, and G.W. Hidy. 1980. Development of a regional model to simulate atmospheric concentrations of sulfur dioxide and sulfate. Boston, MA: Amer. Meteor. Soc. *Preprints of the 2nd Joint Conf. on Appl. in Air Poll. Meteorology*. New Orleans, LA, March 24-27, 1980.
62. Stuff, R.G. and R.L. **Baskett**. 1975. An evaluation of phonological models for spring wheat. Seventh Intl. *Biometeorological Congress. Intl Soc. of Biometeorology*, College Park, MD, August 17-23, 1975.
63. Morgan, D.L. and R.L. **Baskett**. 1972. Energy balance model of man's physiologic comfort with application to an urban environment. Boston, MA: Amer. Meteor. Soc. *Preprints of the Conf. on Urban Environment and the 2nd Conf. on Biometeorology*. Philadelphia, PA, October 31-November 2, 1972.

Publications – Invited Talks

1. **Baskett**, R.L. and M.M. Bradley. 2012. Atmospheric Modeling for LLNL Wind Energy and Emergency Response Programs, Seminar at San José State University Department of Meteorology and Climate Science, October 16, 2012. LLNL-PRES-591574.
2. **Baskett**, R.L. and S.G. Homann. 2011. National Atmospheric Release Advisory Center (NARAC) Support for NASA Mars Science Lab. TV Weather Forecaster Briefing, Kennedy Space Center. November 15, 2011. LLNL-PRES-505753.
3. **Baskett**, R.L., G. Sugiyama, and J.S. Nasstrom. 2008. Operational Emergency Response Modeling Systems for Use with Major Releases of Airborne Hazards. Invited talk at Air Quality in Emergency Response. California Air Response Planning Alliance. Sacramento, CA, October 15, 2008. LLNL-PRES-407706.
4. **Baskett**, R.L. 2006. Lawrence Livermore National Laboratory's National Atmospheric Release Advisory Center. Invited talk at the Northern California AMS Chapter meeting, San Ramon, CA, April 6, 2006.
5. **Baskett**, R.L. 2003. LLNL Emergency Response Dispersion Modeling in support of Homeland Security. National Weather Service Media Workshop, San Francisco State Univ., May 12, 2003.
6. **Baskett**, R.L. 2001. Lawrence Livermore National Laboratory's Multi-scale Atmospheric Dispersion Modeling for Emergency Response-Operations and Research, Invited seminar at Massachusetts Institute of Technology Dept. of Aeronautics and Astronautics, Boston, MA, August 8, 2001.
7. **Baskett**, R.L. 1999. ARAC Capabilities for Accidents and Terrorist Threats. Western Disaster Center and Business Executives for National Security (WDC/BENS) Round-Table. Stanford Research Institute, Palo Alto, CA, March 10, 1999.
8. **Baskett**, R.L. 1998. Simulating the Atmospheric Consequences from the Oleum Tank Car Spill in Richmond, California, Seminar at Univ. of Calif. Environmental Sciences Dept. Graduate Program, Berkeley, CA, October 14, 1998.
9. **Baskett**, R.L. 1993. Emergency response modeling from micro to global scales. University of Southern California Environmental Engineering Dept., Los Angeles, CA, January 22, 1993.

Publications – Technical Reports and Manuals

1. **Baskett**, R.L., S.G. Homann, and P.J. Vogt. 2012. NARAC–DOE SSA After Action Report for the Mars Science Laboratory (MSL) Radiological Contingency Plan (RCP). LLNL-TR-530251 Rev. 2. March 31, 2012.
2. **Baskett**, R.L., J. Greenfield, and C. Gellner. 2011. Annual Report for NARAC's FY2011 Support to USGOC. Prepared for US Government Operations Centers (USGOC), Washington, DC, December 23, 2010. LLNL-AR-521612. Official Use Only.
3. **Baskett**, R.L. 2010. Annual Report for NARAC's FY2010 Support to USGOC. Prepared for US Government Operations Centers (USGOC), Washington, DC, November 29, 2010. LLNL-TR-463322 Official Use Only.
4. **Baskett**, R.L., P.J. Vogt, S.G. Homann. 2011. NARAC Modeling Plan for the Mars Science Laboratory (MSL) Radiological Contingency Plan (RCP). Prepared for US Department of Energy Office of Space and Defense Power Systems, LLNL TR-496332. Official Use Only.
5. Vogt, P.J., R.L. **Baskett**, S.G. Homann, R.J. Lipinski, N.E. Bixler, C. Clutz, N.A. Deane, and D.G. Hoover. 2011. Source Term and Plume Rise Development for NARAC Support of the Mars Science Laboratory Radiological Contingency Planning. LLNL-AR-409064 Official Use Only.
6. Vogt, P.J., R.L. **Baskett**, and S.G. Homann. 2008. NARAC Model Results for the Pluto New Horizons Final Safety Analysis Report Source Term. LLNL UCRL-TR-215350.
7. **Baskett**, R.L., R.P. Freis, L. Simmons, K. Haslam, C. Wood. 2007. Measurement and Dispersion Modeling of Beryllium from High Explosive Tests at Site 300 during 1991. LLNL UCRL-TM-229101.
8. **Baskett**, R.L., S.G. Homann, and P.J. Vogt. 2006. NARAC-DOE SSA Final Report for NASA's 2006 New Horizon Mission. March 24, 2006. LLNL UCRL-TR-220102. 33 pg. Official Use Only.
9. **Baskett**, R.L., 2004: NARAC Web: Viewing Runs Guide. LLNL UCRL-MA-206294.
10. Foster, K.T., F.J. Aluzzi, R.L. **Baskett**, M.B. Dillon, K.T. Foster, S.G. Homann, J.S. Nasstrom, B.M. Pobanz, P.J. Vogt. 2004. Atmospheric Modeling Product-Related Terms and Acronyms. LLNL UCRL-TM-205526-REV-1.
11. Dillon, M.B., J.S. Nasstrom, R.L. **Baskett**, and B.M. Pobanz. 2004. LINC Modeling of August 19, 2004 Queen City Barrel Company Fire in Cincinnati, OH. LLNL UCRL-TR-206580. DOI: [10.2172/15014803](https://doi.org/10.2172/15014803)

12. Dillon, M.B., R.L. **Baskett**, K.T. Foster, and C.S. Foster. 2004. The iClient Companion Version 1.4. LLNL UCRL-TM-202991. 50 pg.
13. Dillon, M.B., R.L. **Baskett**, K.T. Foster, C.S. Foster. 2004. The NARAC Emergency Response Guide to Initial Airborne Hazard Estimates. LLNL UCRL-TM-202990. 10 pg.
14. Foster, C.S., K.T. Foster, J.L. Greenfield, R.L. **Baskett**, J.S. Nasstrom, K.M. Fischer, L.A. Carroll, J.E. Tull, J.D. Gash, J.J. Stewart, and R.D. Belles. 2004. NARAC iClient Users Guide, LLNL UCRL-MA-203729.
15. Tull, J.E., C.S. Foster, K.T. Foster, R.L. **Baskett**, J.S. Nasstrom, W.G. Eme, L.A. Carroll, J.L. Greenfield, J.D. Gash III. 2004. NARAC Web User's Guide. UCRL-TM-203369.
16. Sugiyama G., J.S. Nasstrom, J.E. Tull, R.L. **Baskett**, R.D. Belles, D.F. Bonner, K. Fischer, K.T. Foster, J.D. Gash, and H. Walker. 2002. National Atmospheric Release Advisory Center Emergency Response System for Chemical and Biological Releases in Urban Environments. LLNL UCRL-ID-150689.
17. **Baskett**, R.L., G. Sugiyama, M.D. Dillon. 2003. Answers to Questions from the City of Houston Regarding NARAC's Modeling Support for the BioWatch Program during October 2003. LLNL UCRL-TR-201414.
18. Ermak, D.L., J.S. Nasstrom, R.L. **Baskett**, J.E. Tull, G. Sugiyama, M. Miller, R. Mosley. 2003. Overview: Local Integration of NARAC with Cities (LINC). LLNL UCRL-TR-201544.
19. Ermak, D.L., J.S. Nasstrom, J.E. Tull, R.L. **Baskett**, B.M. Pobanz, and R. Mosley-Rovi. 2002. Chemical and Biological National Security Program (CBNP) Annual Report FY2002 Overview Local Integration of NARAC with Cities (LINC). November 18, 2002. UCRL-ID-150560. DOI: [10.2172/15002261](https://doi.org/10.2172/15002261)
20. Foster, C.S., K.T. Foster, R.L. **Baskett**, J.S. Nasstrom, K.M. Fischer, L.A. Gallo, J.E. Tull, J.L. Greenfield, J.D. Gash, III, J.J. Stewart, Jr., R.D. Belles. 2003. NARAC iClient Users Guide Version 1.4, LLNL UCRL-MA-147561 Export Controlled. 94 pg.
21. Nasstrom, J.S., G. Sugiyama, J.E. Tull, R.L. **Baskett**, R.D. Belles, D.F. Bonner, S. Chin, K.M. Fischer, K.T. Foster, J.D. Gash, III, J.M. Leone, Jr., and H. Walker. 2001. Chemical Biological–National Atmospheric Release Advisory Center with Internet and Web-based Remote Access, Annual Report, Chemical Biological National Security Program, US Department of Energy, Washington, DC.
22. **Baskett**, R.L., T.D. Epley, S. Monaco, B.M. Pobanz. 1998. CAPS/ARAC analysis of consequences of conventional attack on assumed WMD site (U). LLNL Nonproliferation, Arms Control, and International Security (NAI) Directorate, Q-Division CD-98-0043. May 29, 1998. 45 pg (Secret).
23. Sullivan, T.J., J.S. Ellis and R.L. **Baskett**. 1998. ARAC Event Summary: Possible Consequences of American Bombing of the Khartoum, Sudan Chemical Facility. LLNL UCRL-MI-131707.
24. Bowen, B.M., F.J. Aluzzi, R.L. **Baskett**, C.S. Foster, J.C. Pace, B.M. Pobanz, and P.J. Vogt. 1998. ARAC dispersion modeling of the August 1998 Tracy, California tire fire. LLNL UCRL-ID-131759. <http://www.osti.gov/scitech/biblio/8221>
25. **Baskett**, R.L. 1996. Industrial Evaluation of the Atmospheric Release Advisory Capability Technology for Emergency Response. Final Report for CRADA No. LLNL TSB-7776-94.
26. **Baskett**, R.L., P.J. Vogt, W.W. Schalk III, and B.M. Pobanz. 1994. ARAC dispersion modeling of the July 26, 1993 oleum tank car spill in Richmond, California. Prepared for California Office of Emergency Services and Dept. of Health Services, Bay Air Quality Management District, & Contra Costa County Health Services Dept. Livermore, CA: LLNL Report UCRL-ID-116012-Rev. 1. 53 pg. DOI: [10.2172/10137425](https://doi.org/10.2172/10137425)
27. Abriam, R.O., R.L. **Baskett**, D.C. Chapman, W. Chiu, J.D. Crew, R.M. Moore, and M.E. Spruiell. 1993. *ARAC Site Workstation System User's Guide*. Livermore, CA: Lawrence Livermore National Laboratory Report UCRL-MA-115639DR. 118 pg.
28. Mueller, P.K., G.M. Hidy, J.G. Watson, R.L. **Baskett**, K.K. Fung, R.C. Henry, T.F. Lavery, K.K. Warren. 1983. The Sulfate Regional Experiment (SURE): Report of findings (Vols. 1, 2, and 3). EPRI Report Number EA-1901. Westlake Village, CA: Environ. Research & Technology, Inc. Prepared for Electric Power Research Institute, Palo Alto, CA.
29. **Baskett**, R.L. 1982. Numerical Modeling for the Mount Emmons Project, Gunnison County, CO. Denver, CO: Camp, Dresser & McKee, Inc. Prepared for Amax Inc., Golden, CO.
30. **Baskett**, R.L. 1982. Atmospheric Tracer Studies for the Mount Emmons Project, Gunnison County, CO. Denver, CO: Camp, Dresser & McKee, Inc. Prepared for Amax Inc., Golden, CO.
31. **Baskett**, R.L., R. Lewis, B. Nitta. 1979. Air Quality Impacts of Energy Developments in Northeastern Montana. Westlake Village, CA: Environ. Research & Technology, Inc. Prepared for Northern Resources, Billings, MT.

32. **Baskett**, R.L. 1979. Central Valley Particulates: A Review. Westlake Village, CA: Environ. Research & Technology, Inc. Prepared for Meteorological Research Inc., Altadena, CA.
33. Krablin, R. and R.L. **Baskett**. 1977. Feasibility of a supplementary control system for the Anaconda Smelter. Westlake Village, CA: Environ. Research & Technology, Inc. Prepared for The Anaconda Company, Butte, MT.
34. Berman, E.A. and R.L. **Baskett**. 1976. Regional air quality analysis in the state of Utah and surrounding regions. Westlake Village, CA: Environ. Research & Technology, Inc. Prepared for US Dept of Interior, Bureau of Land Mgmt, Denver, CO.
35. **Baskett**, R.L., W.W. Hildreth, D.D. Wilcox, III, and S.K. Woolley. 1976. Large Area Crop Inventory Experiment (LACIE) Phase II Winter Wheat End-of-Dormancy Restart Model. Houston, TX: Lockheed Electronics Co., Aerospace Systems Div. Prepared for NASA Earth Observations Division, Johnson Space Center.
36. **Baskett**, R.L. and D.D. Wilcox, III. 1974. Cloud cover probability for the Large Area Crop Inventory Experiment (LACIE). Houston, TX: Lockheed Electronics Co., Aerospace Systems Div. Prepared for NASA Earth Observations Division, Johnson Space Center. 150 pg.