

ROBERT LOWE BARNETT, PH.D.

9 Union St S, Almonte, ON K0A 1A0 + 613-850-8370 + RLB@wolf.net

EDUCATION

Ph.D., Systems Engineering, Feb 2013	Stevens Institute of Technology, Hoboken, NJ
M.S., Electrical Engineering, Jun 1987	Drexel University, Philadelphia, PA
B.S., Electrical Engineering, May 1981	Drexel University, Philadelphia, PA

AWARDS AND CERTIFICATIONS

- Ontario Provincial Nominee Program, Awarded Nomination Aug 2017,
Permanent Residency Mar 2018
- FAA/ATO Office of Safety Vice President's Award, 2009
for planning and conducting Safety Management System Audit Program
- ISO 9001 Lead Auditor Certification, 2009-2012
- Graduate Certificate for Systems Engineering and Architecting,
Stevens Institute of Technology, Feb 2006

EXPERIENCE

Industry Experience:

- JLAN Solutions LLC, Washington, DC, Oct 2018 – Present
Provide classroom instruction for FAA Systems Engineering Verification and Validation course.
- EIT/Hi-Tec Systems, Inc., Egg Harbor Township, NJ, Jan 2019 – Present
Consulting and Proposal preparation (as Independent Consultant/1099)
- EIT/Hi-Tec Systems, Inc., Egg Harbor Township, NJ, Jun 2015 – Dec 2018
Senior Systems Engineer
Updating and revising FAA Test and Evaluation Standards, Handbook, Process Guidance and Templates
- JMA Solutions, Inc., Washington, DC, Mar 2016 – Sep 2017
Provide classroom instruction for FAA Systems Engineering Verification and Validation course (concurrent with Hi-Tec).
- Federal Aviation Administration, Atlantic City, NJ, Jan 1979 – May 2014
As Operations Research Analyst (GS Series 1515):
 - Integrated Safety Policy, 2013 – 2014
Developed Competency Standards for Safety Professionals
 - New System Modeling and Validation, 2011 – 2013
Analyzed strengths & weaknesses of current modeling tools/methods
 - Common Taxonomy (CT) for Aviation Scenario Classification, 2012/13
Devised and validated top-level schema for CT categories
 - Independent Operational Test and Evaluation (IOT&E) and
Independent Operational Assessments, 1993 – 2011
Planned and conducted evaluations of major systems
 - Safety Data Analysis research and reporting, 2010 - 2011 (concurrent)
Developed and provided reports for VP of Air Traffic Org. Safety

Safety Management System Auditing, 2008 – 2010 (concurrent)
Planned and conducted final pre-approval ATO SMS internal audit
FAA Response Team for the ICAO Universal Safety
Oversight Audit Programme (USOAP), 2007
Air Traffic Organization Activity Value Analysis Team, 2004

As Electronics Engineer (GS Series 0855):

Test and Evaluation, 1979 – 1992

Developmental and Operational testing of voice comm systems

- RCA, Corporation, Camden, NJ, 1977 – 1978, Engineering Intern (co-op), Satellite data recorders, Video cameras

Academic Experience:

- Richard Stockton College, Adjunct Professor, 1986 [concurrent with FAA]

TECHNICAL SKILLS

- System analysis
- Aviation safety analysis
- Safety Management System Auditing
- Statistical Analysis (using R, SPSS, Excel)
- Team Building and Team Facilitation
- Writing and presentation for Executive Decision-makers

PROFESSIONAL SOCIETIES

- Institute of Electrical and Electronic Engineers (IEEE)
- International Council of System Engineers (INCOSE)
- International Test and Evaluation Association (ITEA)
- Operational Research Society (ORS)
- Tau Beta Pi Engineering Honor Society

PUBLICATIONS

Harkleroad, E., Vela, A., Kuchar, J., (MIT Lincoln Laboratory), Barnett, B., Merchant-Bennett, R., (Federal Aviation Administration), “Risk-based Modeling to Support NextGen Concept Assessment and Validation,” MIT Lincoln Laboratory, Project Report ATC-405, 1 March 2013.

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.446.1224&rep=rep1&type=pdf>

Barnett, R. L., (lead auditor), Safety Management System Audit Reports for the FAA Air Traffic Organization:

- Audit of NextGen and Operations Planning Services, 20 November 2009
- Audit of Terminal Services, 30 September 2009
- Audit of Technical Operations, 24 September 2009
- Audit of En route and Oceanic Services, 27 August 2009
- Audit of System Operations, 29 July 2009
- Audit of the ATO Office of Safety, 11 June 2009

Operational Evaluation Reports for FAA: (Note that for most of the following reports I led and facilitated evaluation teams, and while the reports were issued under my signature, the report content and findings were developed by eliciting team consensus).

- Barnett, R.L., Interim Voice Switch Replacement (IVSR) Independent Operational Test and Evaluation (IOT&E) Follow-up Evaluation Report, SSIA-IVSR-FR01-01-F, 31 March 2008.
- Barnett, R.L., Interim Voice Switch Replacement (IVSR) Independent Operational Test and Evaluation Report, IOTE-IVSR-RP01-01-F, 16 January 2007.
- Barnett, R.L., Integrated Terminal Weather System (ITWS) Independent Operational Test and Evaluation Follow-up Report, ATQ-ITWS-FR01-F, 11 June 2003.
- Barnett, R.L., Integrated Terminal Weather System (ITWS) Independent Operational Test and Evaluation Report, ATQ-ITWS-RP01-F, 20 September 2002.
- Barnett, R.L., Enhanced Terminal Voice Switch (ETVS) Independent Operational Test and Evaluation Follow-up Report, ATQ-ETVS-FR01-02-F, 31 May 2000.
- Barnett, R.L., Independent Operational Test and Evaluation for the Enhanced Terminal Voice Switch (ETVS), 2 September 1998.
- Barnett, R.L., Independent Operational Test and Evaluation Final Report for the Sustaining Backup Emergency Communication Equipment (S-BUEC), 18 September 1997.
- Barnett, R.L., Independent Operational Test and Evaluation Quick Look Report for the Sustaining Backup Emergency Communication Equipment (S-BUEC), 14 February 1997.

Technical Reports for FAA:

- Johns, R.M., Barnett, R.L.; Master test plan for the prototype phase of the Voice Switching and Control System (VSCS) program, FAA Technical Center Technical Note, DOT/FAA/CT-TN86/1, 1986
- Thedford, W.A., Novakoff, A.K., Barnett, R.L., Galanter, E.H., Van Laer, J.; Pilot Utilization of automatic traffic and resolution advisories, FAA Technical Center Letter Report, DOT/FAA/CT/82-100/89LR, August 1982.
<http://www.tc.faa.gov/its/worldpac/techrpt/ctrlr8289.pdf> (This paper has several notable “publication distance” metrics: through Dr. Galanter, an Erdős number of 4, a Chomsky number of 3, and a George A. Miller number of 2).
- Barnett, R.L., Documentation of Format and Content of Human Factors Database, FAA Technical Center Letter Report, DOT/FAA/CT/82-100/91LR, August 1982.
- Thedford, W.A., Novakoff, A.K., Barnett, R.L.; Traffic advisory service user evaluation, FAA Technical Center Letter Report, DOT/FAA/CT/82-100/92LR, August 1982

Academic Research:

- Barnett, R. L., “The Connotative Meaning of Independence in System Evaluations:” A Dissertation submitted to the faculty of Stevens Institute of Technology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, Dr. Brian J. Sauser, Chairman of the Advisory Committee, May 2012, UMI Publication No. 3518326, U.S. Copyright Registration No. TX0006748031 / 2012-09-14. Summary and link at <http://barnett-survey.org> or full dissertation at <https://search.proquest.com/openview/41b9790af567a974bfd0d02bc27724a2/1?pq-origsite=gscholar&cbl=18750&diss=y>

Historical Publications/Media:

- Barnett, R. L., Chernoski S., Bipolar State: A Survey and Analysis of South Jersey's Geographical and Cultural Borders, *SoJourn* 1:1, pp. 33-48, South Jersey Culture & History Center, Stockton University, Spring 2016.
<https://blogs.stockton.edu/sjchc/2016/04/24/sojourn-has-arrived/>
- Video Appearance, "Let's Bring Peace Pilgrim to the New Jersey Hall of Fame!" 2013.
<https://www.youtube.com/watch?v=F6HF1RV2YFE>
- Video Appearances, "New Jersey: The Movie," See-All Productions, 2009.
http://www.newjerseythemovie.com/New_Jersey_The_Movie/Consultants.html
- Barnett, R.L., Lucy Harris-Jackson (c1780-c1875): The End of Slavery, and the Last People Enslaved in South Jersey, *Atlantic Heritage Center Yearbook* 15:4, October 2007.
<http://web.archive.org/web/20120906033802/http://www.atlanticheritagecenternj.org/Main/documents/AHCSpring2008Newsletter.pdf>
- Barnett, R.L., Commemorating Peace Pilgrim's NJ Roots, *South Jersey Traditions* 3:1, pp. 11-12, Millville, NJ: Down Jersey Folklife Center, Spring 2009. Corrected copy at:
<http://westjersey.org/ehc/peacecomeshome.pdf>
- Numerous guest lectures at colleges and historical societies. Details on request.