

8.0 References

- Agresti, A., & Coull, B. (1998). Approximate is better than "exact" for interval estimation of binomial proportions. *The American Statistician*, 52(2), 119-126.
- Bowen, M.W. and C.A. Bennett. 1988. *Statistical Methods for Nuclear Material Management*, NUREG/CR-4604, U.S. Nuclear Regulatory Commission, Washington, DC
- B. W. Brown, Jr., M. Hollander, and R. M. Korwar, Nonparametric tests of independence for censored data, with applications to heart transplant studies, *Reliability and Biometry: Statistical Analysis of Lifelength*, F. Proschan and R. J. Serfling, (eds.), pp. 327-354, SIAM: Philadelphia, 1974.
- Brown, G. H. and N. I. Fisher. 1972. Subsampling a Mixture of Sampled Material. *Technometrics* 14(3): 663-&.
- Cameron, K. 2004, "Better Optimization of Long-Term Monitoring Networks." *Bioremediation Journal* 8:89-107.
- Cameron, K, and P Hunter. 2002, "Using Spatial Models and Kriging Techniques to Optimize Long-Term Ground-Water Monitoring Networks: A Case Study." *Environmetrics* 13:629-59.
- Chernick, M. R., and Liu, C. Y. (2002). The saw-toothed behavior of power versus sample size and software solutions: Single binomial proportion using exact methods. *The American Statistician*, 56, 149-155.
- Cleveland W.S. 1979. "Robust Locally Weighted Regression and Smoothing Scatterplots." *Journal of the American Statistical Association*, Vol. 74, No. 368. p. 829-836.
- Cochran, W.G. 1977. *Sampling Techniques*, 3rd edition. John Wiley & Sons, New York.
- Conover, W.J. 1980. *Practical Nonparametric Statistics*. John Wiley and Sons, New York.
- Davidson, J. R. 1995. *ELIPGRID-PC: Upgraded Version*. ORNL/TM-13103, Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Devore, J. L., 1991, *Probability and Statistics for Engineering and the Sciences*, Belmont, CA, Wadsworth, Inc.
- Duetsch CV and AG Journal. 1998. *GSLIB Geostatistical Software Library and User's Guide*. 2nd Edition, Applied Geostatistics Series, Oxford University Press, Inc. New York.
- Elder, R. S., W. O. Thompson, et al. 1980. Properties of Composite Sampling Procedures. *Technometrics* 22(2): 179-186.
- Esterby, S.R. Review of methods for the detection and estimation of trends with emphasis on water quality applications , *Hydrological Processes* 10:127-149.
- Fisher, R. A., 1970, *Statistical Methods for Research Workers*, New York, NY, Hafner Press.

- Geosoft Inc., 2007, *Oasis Montaj Users Manual Version 6.4*, available at www.geosoft.com, 290 p.
- Gibbons, J.D., and S. Chakraborti. 2003. *Nonparametric Statistical Inference*, Marcel Dekker, NY.
- Gilbert, R.O., J. E. Wilson, B. A. Pulsipher, N. L. Hassig, and L. L. Nuffer. 2005. *Technical Documentation and Verification for the Buildings Module in the Visual Sample Plan (VSP) Software*. PNNL-15202. Pacific Northwest National Laboratory, Richland, Washington.
- Gilbert, R.O., J. E. Wilson, B. A. Pulsipher. 2005. *Visual Sample Plan User's Guide for Establishing the Boundary of Contamination*. PNWD-3580. Battelle-Pacific Northwest Division, Richland, Washington.
- Gilbert, R., J. Wilson, et al. 2005. *Technical Documentation and Verification for the Buildings Module in the Visual Sample Plan (VSP) Software*. Pacific Northwest National Laboratory, Richland, Washington.
- Gilbert, R. O, J. E. Wilson, R. F. O'Brien, D. K. Carlson, D. J. Bates, B. A. Pulsipher, and C. A. McKinstry. 2002. *Version 2.0 Visual Sample Plan (VSP) Models and Code Verification*. PNNL-13991, Pacific Northwest National Laboratory, Richland, Washington.
- Gilbert, R. O, J. E. Wilson, R. F. O'Brien, D. K. Carlson, B. A. Pulsipher, and D. J. Bates. 2003. *Version 2.0 Visual Sample Plan (VSP): UXO Module Code Description and Verification..* PNNL-14267, Pacific Northwest National Laboratory, Richland, Washington.
- Gilbert, R. O. 2003. *Results of QA Testing of the Visual Sample Plan (VSP) Collaborative Sampling (CS) Module* PNNL Milestone Report to EPA Quality Staff, Pacific Northwest National Laboratory, Richland, Washington.
- Gilbert, RO, JR Davidson, JE Wilson, BA Pulsipher. 2001. *Visual Sample Plan (VSP) models and code verification*. PNNL-13450, Pacific Northwest National Laboratory, Richland, Washington.
- Gilbert, R.O., B.A. Pulsipher, D.K. Carlson, R.F. O'Brien, J.E. Wilson, D.J. Bates and G.A. Sandness. 2001. *Designing UXO Sensor Surveys for Decision Making*, Pacific Northwest National Laboratory, Richland, WA.
- Gilbert, R. O. 1987. *Statistical Methods for Environmental Pollution Monitoring*. John Wiley & Sons, Inc., New York.
- Goovaerts, P. 1997. *Geostatistics for Natural Resources Evaluation*. Applied Geostatistics Series, Oxford University Press, New York.
- Guenther, W. C. 1982. *Normal Theory Sample-Size Formulas for Some Non-Normal Distributions*. *Communications in Statistics Part B-Simulation and Computation* 11(6): 727-732.
- Gurland, John and Tripathi, Ram C. 1971. *A Simple Approximation for Unbiased Estimation of the Standard Deviation*. *The American Statistician*. 25:30-32.
- Hahn, GJ. and WQ Meeker. 1991. *Statistical intervals a guide for practitioners*. John Wiley & Sons, New York.

Hathaway, J, B. A. Pulsipher, J. E. Wilson, C. A. McKinstry. 2006. Final Report for Statistical Methods and Tools for UXO Site Characterization on Final Simulated Site. PNNL- 15651, Pacific Northwest National Laboratory, Richland, Washington.

Hathaway, J.E., B. Roberts, S. McKenna, B.A. Pulsipher. 2007. *Using the VSP-UXO Modules to Support Site Characterization*. PNNL-17382. Pacific Northwest National Laboratory, Richland, Washington.

Hathaway JE, GB Schaalje, RO Gilbert, BA Pulsipher, and BD Matzke. 2008. "Determining the Optimum Number of Increments in Composite Sampling." *Environmental and Ecological Statistics* 15(3):313-327.

Hathaway J, RO Gilbert, JE Wilson, and BA Pulsipher. 2008. "Compliance Sampling Applications in MEC Clean-Up at Military Training Sites." *Stochastic Environmental Research and Risk Assessment*.

Helsel, D.R. 2005. *Nondetects and Data Analysis, Statistics for Censored Environmental Data*, Wiley & Sons, New York, NY.

Helsel, D.R. and R.M. Hirsch. 1995. *Statistical Methods in Water Resources*. Elsevier, NY.

Hirsch, R.M., J.R. Slack, and R.A. Smith. 1982. Techniques of trend analysis for monthly water quality data, *Water Resources Research* 18(1):107-121.

Hirsch, R.M. and J.R. Slack. 1984. A nonparametric trend test for seasonal data with serial dependence. *Water Resources Research* 20(6):727-732.

Isaaks, EH, and RM Srivastava. 1989. *An Introduction to Applied Geostatistics*. Oxford University Press, New York.

Jaech, J.L. 1973. *Statistical Methods in Nuclear Material Control*, TID-26298, NTIS, Springfield, Virginia.

Kendall, M.G. 1975. *Rank Correlation Methods*, 4th edition, Charles Griffin, London.

Kyriakidis, PC. 1997. Selecting Panels for Remediation in Contaminated Soils Via Stochastic Imaging. In *Geostatistics Wollongong '96*, eds. EY Baafi and NA Schofield, Vol 2, pp. 973-83. Kluwer Academic Publishers, Dordrecht.

Lyles, R.H. and L.L. Kupper. 1996. On Strategies for Comparing Occupational Exposure Data to Limits, *American Industrial Hygiene Association Journal* 57:6-15.

Mann, H.B. 1945. Non-parametric tests against trend, *Econometrica* 13:163-171.

Matzke BD, JE Wilson, and BA Pulsipher. 2006. *Version 4.4 Visual Sample Plan (VSP): New UXO Module Target Detection Methods*. PNNL-15843, Pacific Northwest National Laboratory, Richland, WA.

- Matzke BD, JE Wilson, and DA Damstedt. 2008. Visual Sample Plan (VSP): QA of UXO Module Target Detection Methods . PNNL-17286, Pacific Northwest National Laboratory, Richland, WA.
- Matzke BD, JE Wilson, J Hathaway, and BA Pulsipher. 2006. "Methods for Determining Probabilities of Detection for Target Areas at DoD Munitions Sites." PNNL-SA-53289, Pacific Northwest National Laboratory, Richland, WA.
- Matzke BD, JE Wilson, and BA Pulsipher. 2006. Version 4.4 Visual Sample Plan (VSP): New UXO Module Target Detection Methods. PNNL-15843, Pacific Northwest National Laboratory, Richland, WA.
- Matzke BD, JE Wilson, J Hathaway, and BA Pulsipher. 2008. "Statistical Algorithms Accounting for Background Density in the Detection of UXO Target Areas at DoD Munitions Sites." *Stochastic Environmental Research and Risk Assessment* 23(2(2009)):181.
- Matzke BD, JE Hathaway, LH Segó, BA Pulsipher, SA McKenna, JE Wilson, ST Dowson, LL Nuffer, RO Gilbert, BL Roberts, NL Hassig, CJ Murray. 2010. Visual Sample Plan Version 6.0 User's Guide . PNNL-19915, Pacific Northwest National Laboratory, Richland, WA.
- McIntyre, G.A. 1952. A method for unbiased selective sampling using ranked sets, *Australian Journal of Agricultural Research* 3:385-390.
- Millard, S.P. and N.K. Neerchal. 2001. *Environmental Statistics with S-Plus*. CRC Press, New York, NY.
- Miller, R.G. 1986. *Beyond ANOVA: The Basics of Applied Statistics*, New York, Wiley.
- Montgomery, Douglas C. 2001. *Introduction to Statistical Quality Control*, 4th ed. John Wiley & Sons, Inc.
- Owen, D. B. 1962. *Handbook of statistical tables*. Reading, Mass., Addison-Wesley.
- Patil, G.P., A.K. Sinha and C. Taillie. 1994. Ranked set sampling, *Handbook of Statistics* 12, *Environmental Statistics*, pp. 167-200, (G.P. Patil and C.R. Rao, editors), North-Holland, New York, NY.
- Perez, A., and J.J. Lefante. 1997. Sample size determination and the effect of censoring when estimating the arithmetic mean of a lognormal distribution. *Communications in Statistics, Theory and Methods* 26 (11):2779-2801.
- Press, W. H., S. A. Teukolsky, W. T. Vetterling, and B. P. Flannery. 1993. *Numerical Recipes in C: The Art of Scientific Computing*. 2nd ed. Cambridge University Press, United Kingdom.
- Ramsey, F. L., and Schafer, D. W., 2002, *The Statistical Sleuth: A Course in Methods of Data Analysis*, Belmont, CA: Duxbury Press.
- Rohlf, F. J., H. R. Akcakaya, et al. 1996. Optimizing composite sampling protocols. *Environmental Science & Technology* 30(10): 2899-2905.
- Schilling, E.G. 1982. *Acceptance Sampling in Quality Control*, Marcel Dekker, Inc, New York.

Sego, L.H. and J.E. Wilson. 2007. Accounting for False Negatives in Hot Spot Detection. PNNL-16812. Pacific Northwest National Laboratory, Richland, WA, August 2007.
http://www.pnl.gov/main/publications/external/technical_reports/PNNL-16812.pdf

Singer, D.A. and J.E. Wickman. 1969. Probability Tables for Locating Elliptical Targets with Square, Rectangular, and Hexagonal Point Nets. Pennsylvania State University, University Park, Pennsylvania. Special Publication 1-69.

Singer, D.A. 1972. ELIPGRID: A Fortran IV program for calculating the probability of success in locating elliptical targets with square, rectangular and hexagonal grids. Geocom Programs 4:1-16.

Squeglia, N.L. 1994. Zero Acceptance Number Sampling Plans. ASQ Quality Press, Milwaukee, WI.

Thompson, S. K. 1990. Adaptive Cluster Sampling. Journal of the American Statistical Association 85:412.

Thompson, S.K. and G.A.F. Seber. 1996. Adaptive Sampling. John Wiley & Sons, New York.

Tuckfield, RC. 1994, "Estimating an Appropriate Sampling Frequency for Monitoring Ground Water Well Contamination." Presented at International Nuclear Materials Management (INMM) Annual Meeting: Naples. Available through DOE Office of Scientific and Technical Information, http://www.osti.gov/bridge//product.biblio.jsp?query_id=1&page=0&osti_id=10177871

Webster, R, and MA Oliver. 1993, "How Large a Sample Is Needed to Estimate the Regional Variogram Adequately?" in Geostatistics Troia '92, ed. A Soares, Vol 1, pp. 155-66. Kluwer Academic Publishers, Dordrecht.

Wilson JE. 2013. Methodology for Defining Gap Areas between Course-over-ground Locations. PNNL-22851, Pacific Northwest National Laboratory, Richland, WA.
http://www.pnl.gov/main/publications/external/technical_reports/PNNL-22851.pdf

Wilson JE. 2013. Methodology for Augmenting Existing Paths with Additional Parallel Transects. PNNL-22770, Pacific Northwest National Laboratory, Richland, WA.
http://www.pnl.gov/main/publications/external/technical_reports/PNNL-22770.pdf

EPA. 1997. *Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)*.

EPA 402-R-97-016, NUREG-1575, U.S. Environmental Protection Agency, Washington, D.C.

EPA. 2000a. *Guidance for the Data Quality Objectives Process - QA/G-4*. EPA/600/R-96/055, Office of Environmental Information, U.S. Environmental Protection Agency, Washington, D.C.

EPA. 2000b. *Guidance for Data Quality Assessment - Practical Methods for Data Analysis - QA/G-9, QA00 Update*. EPA/600/R/96/084, Office of Environmental Information, U.S. Environmental Protection Agency, Washington, D.C.

EPA, November 2001. Guidance for Choosing a Sampling Design for Environmental Data Collection, EPA QA/G-5S, Peer Review Draft, Washington, D.C.

EPA. 2002. *Guidance for Choosing a Sampling Design for Environmental Data Collection, QA/G-5S, Peer Review Draft*. Office of Environmental Information, U.S. Environmental Protection Agency, Washington, D.C.

EPA. 2006a. Guidance on Systematic Planning Using the Data Quality Objectives Process. EPA QA/G-4, EPA/240/B-06/001, U.S. Environmental Protection Agency, Office of Environmental Information, Washington DC.

EPA .2006. Data Quality Assessment: Statistical Methods for Practitioners. EPA QA/G-9S, EPA/240/B-06/003, U.S. Environmental Protection Agency, Office of Environmental Information, Washington DC.

VSP Development Team. (2010). *Visual Sample Plan: A tool for design and analysis of environmental sampling*. Version 7.0. Pacific Northwest National Laboratory. Richland, WA. <http://vsp.pnl.gov>.