

Professional Qualifications

John Henry



Education:

B.A., English
University of Alaska Fairbanks, 1997

M.S., Software Engineering
University of Alaska Fairbanks, 2007

Background:

Mr. Henry has been working with computers and office tools such as MS Excel and Word for over 18 years and in a super user or administrator capacity for 8 years. Mr. Henry has experience in almost all aspects of desktop computer systems, including operating systems, hardware assessment and installation, database management, networking, security, software design, requirements assessment, and production, and a immense range of COTS software.

During his employment and education he has used or managed/maintained Macintosh OS X, Solaris, UNIX, Linux variations, and different versions of Windows. He has networks, servers and maintained a variety of databases including MySQL, Foxpro, Access, and Excel.

Previous field experience includes gold exploration (through bedrock terrain mapping) in the Alaskan wilderness as a backpack driller and corner reflector maintenance for a satellite based radar download and data center. Acoustic field measurements include ambient surveys, compliance and investigative measurements.

Since arriving at Hankard Environmental, Mr. Henry has completed or supported over 40 aircraft, transportation, oil & gas, architectural, and land development projects.

Acoustic Experience:

Noise Analysis Modeling

The modeling process usually begins with gathering information such as aerial(s), elevations, and the details of the proposed project, for the area to be modeled. Scaled aerial(s) are obtained from commercial aerial services, the USGS National Map Seamless Server, or Terraserver. Terrain or elevation data is obtained from ground surveys or USGS digital elevation models. Data could also be obtained from the county, city or the client. All data must be coordinated and combined into a single Autocad file, which often involves converting file format (such as Microstation), coordinate system, or scale. Modeling the noise environment involves identifying (x, y, and z axes) the noise source(s), measurement location(s), receptors and relevant environmental features (barriers, ground surface property changes, elevation shifts, etc) within the Autocad file. This often involves integrating into the model information obtained from online mapping sources (such as street view visual information) or onsite observations in the form of video, pictures, or text notes. The model information can then be imported into the proper noise analysis model such as, Federal Highway Administration's (FHWA) Traffic Noise Model (TNM) v2.5, International Standards Organization (ISO) 9613-2 (attenuation of sound during propagation outdoors) method, or Federal Transit Administration (FTA) noise and vibration analysis procedures. Validating the model involves comparing the results of the model with measured data, considering the causes of significant variations, and (if required) modifying and re-running the model. When mitigation is called for it may be necessary to research the constraints particular to the project, such as federal, state, or local regulations. Often mitigation involves a barrier, which must be integrated into the model and analyzed to find the optimal location, length and height.

Documentation

The end product of all modeling work is the documentation which is tailored to the client's needs. For example a large public project might require a summary chapter as part of an Environmental Impact Statement as well as a large detailed technical document, while a smaller private project may only require a letter or memorandum to satisfy a local noise ordinance. The quality of the graphics and data graphs is also tailored to the needs of each client. That said, Hankard Environmental takes pride in producing high quality images that clearly express the intended information.

Projects

Extensively researched shooting analysis and mitigation experiments and investigations, and prepared white paper. Using research information, assisted with shooting range noise analysis and mitigation prototype proposal and assessment. Developed the statistical analysis method used in ongoing pavement noise study. Other projects for which noise analysis or documentation services were provided:

- * Gold mine environmental impact
- * Power plant environmental impact
- * Transportation hub (bus, rail, light rail) environmental impact and mitigation
- * Amphitheater environmental impact
- * Highway expansion environmental impact and mitigation
- * Annual assessment of "quiet" pavement
- * Office noise assessment and mitigation
- * New construction interior transmission loss assessment and mitigation
- * Car wash/coffee stand environmental impact
- * HVAC noise assessment and mitigation
- * Generator noise assessment and mitigation