1077-VI-273 **Timothy Hall*** (info@pqic.com), P. O. Box 425616, Cambridge, MA 02142-0012. *A Nomograph For The Trigonometric Functions.*

In the early part of the twentieth century, engineering sciences conscripted the seventeenth-century inventions of Napier/Gunter logarithm scales and the Oughtred slide rule to produce a stratagem that simplified complicated floating-point multiplication and division tasks, and could be used to calculate trigonometric functions. Reliance on electronic-based calculators quickly replaced the skill needed to effectively use a slide rule, with the beguiling promise of "highly precise results" (in contexts where, more often than not, such precision was completely unjustified).

This paper presents a nomograph for the trigonometric functions that represents a return to the limited, but arbitrary, precision capabilities of the slide rule. The nomograph is a two-dimensional, hand-held, graphical calculation artifice that allows a user to quickly, easily, and simultaneously calculate twelve different trigonometric function values by finding the intersection of two straight lines that meet at right angles.

The nomograph may also be physically implemented as depicted in this paper in digital logic hardware as an Embedded Calculation Microprocessor Subsystem for arbitrarily-precise trigonometric calculation results. (Received August 17, 2011)