From: <Doddcv@[redacted]> EX. 6 C. Dobb I BARNES
To:
Date: Mon, Jul 24, 2000 2:49 PM
Subject: Re: 100% TW NOTCH

Ian:
For the 100% notch to produce the correct phase setting, all of the factors that are effecting the phase shift for all the different notches must be fixed, including such things as coil dimensions, frequency, wall thickness, conductivity and related parameters such as coil inductance and cable capacitance. If all of these are well known and fixed, then the phase shift of the different notches for all of these conditions must be well known. Then, the 100% notch becomes the best notch on which the phase shift can be set, since it gives the largest phase. However, if these parameters are not known and fixed, then the most shallow id notch that will give a repeatable phase shift should be used. The 20% notch does not produce a clean and repeatable enough signal to be used, but the 40% notch does. The variations changes in the coil dimensions, frequency, wall thickness, conductivity and related parameters such as coil inductance and cable capacitance will be smaller for the id notches than the 100% deep notch.
Caius

CC: <wls@nrc.gov>