***Coaxial Waves*, Lyrics by Walter F. Smith, 11-30-11**



**Tune: Jingle Bell Rock, by Joseph Carleton Beale & James Ross Booth (1957)**

**Note: If you’re not familiar with Cm6, you can use A instead.**

**G D7**

**If you want a cable that’s great, then you should choose RG58!**

**D7 A D D7**

**It has capac’tance one hundred “puff” per meter– That’s clearly enough!**

 **G**

**Combine it with inductance two hundred five-oh**

 **G D7**

**Nanohenries per meter, now watch the waves go!**

**D7 D7 G G7**

**Zippin’ and zappin’ at twice the speed c, Divided by three!**

 **C G**

**[Bridge:] When it’s wave time, you can save time by using this simple rule:**

 **A D D7**

**That the V-wave is like the E-wave of light in a vacuum, ain’t that cool?**

**G E**

**Giddy-up, current times L-naught (I think) moves like the B behaves!**

**Am Cm6 A D7 G**

**Swing and wiggle in cylindrical sync – That’s coaxial waves!**

 **G**

**The ratio of voltage to current is just**

 **G D7**

**Root L-naught by C-naught, as we have discussed.**

 **D7 D7 G G7**

**So, an infinite cable, though it sounds bizarre, feels like a 50-ohm R!**

 **C G**

 **[Bridge:] Let us all kneel to- Paul Neill, And Carl Conselman as well.**

 **A D D7**

**The correct plug’s a bayonet plug— The BNC connector’s totally swell!**

 **G E**

**For left-moving waves, the I’s and the V’s are one eighty degrees out of phase**

**Am Cm6 A D7 A D7**

**Swing with anti-symmetrical ease –That’s coaxial, that’s coaxial,**

**A D7 G**

**That’s coaxial waves!**