

The ensembles I_N and S_N are generated in the following manner:

- (1) The ECD and pulse peak amplitude estimates are determined in accordance with Chapter 2.A.1.a above.
- (2) Based upon this ECD and pulse peak amplitude, an ensemble of standard half-cycle peak samples (I_N), normalized to the pulse peak, is calculated using equation (2.2).
- (3) The eight half-cycle peak samples of the actual waveform are normalized to this pulse peak to produce the ensemble S_N .

c. Half-Cycle Peak Amplitudes (Individual Tolerances)

The peak amplitude of each half-cycle of the first antenna-current pulse for each group meets the following criteria:

$$|I_N - S_N| \leq .03 \quad 1 \leq N \leq 8 \quad (2.4)$$

$$|I_N - S_N| \leq .10 \quad 9 \leq N \leq 13 \quad (2.5)$$

where

I_N and S_N are defined in Chapter 2.A.1.b above.

2. Pulse Trailing Edge

The pulse trailing edge (that portion of the Loran-C pulse following the peak of the pulse or 65 microseconds, whichever occurs first) is controlled in order to maintain spectrum requirements. At different transmitting sites, or with different transmitting equipments, the pulse trailing edge may differ significantly in appearance and characteristics. Regardless of these differences, for each pulse and for all $t > 500$ microseconds, $i(t)$ satisfies the criteria of Table 1.

Category 1 : $i(t) \leq .0014 \text{ A}$

Category 2 : $i(t) \leq .016 \text{ A}$

Table 1 - PULSE TRAILING EDGE TOLERANCES BASED UPON PEAK AMPLITUDE (A).

3. Zero-Crossing Times and Tolerances within a Pulse

A standard Loran-C pulse (positive phase code and ECD = 0) is shown in Figure 2 with half-cycles and zero crossings of interest identified. Zero-crossing times are measured with respect to the standard zero crossing (the positive going zero crossing at 30 microseconds for a positively phase coded pulse). With ECDs in the range of -2.5 to 2.5 microseconds, zero-crossing times and tolerances of the first pulse are shown in Table 2. See Chapter 2.B.5.c for the specifications regarding the conformance of other pulses in the group to this first pulse.

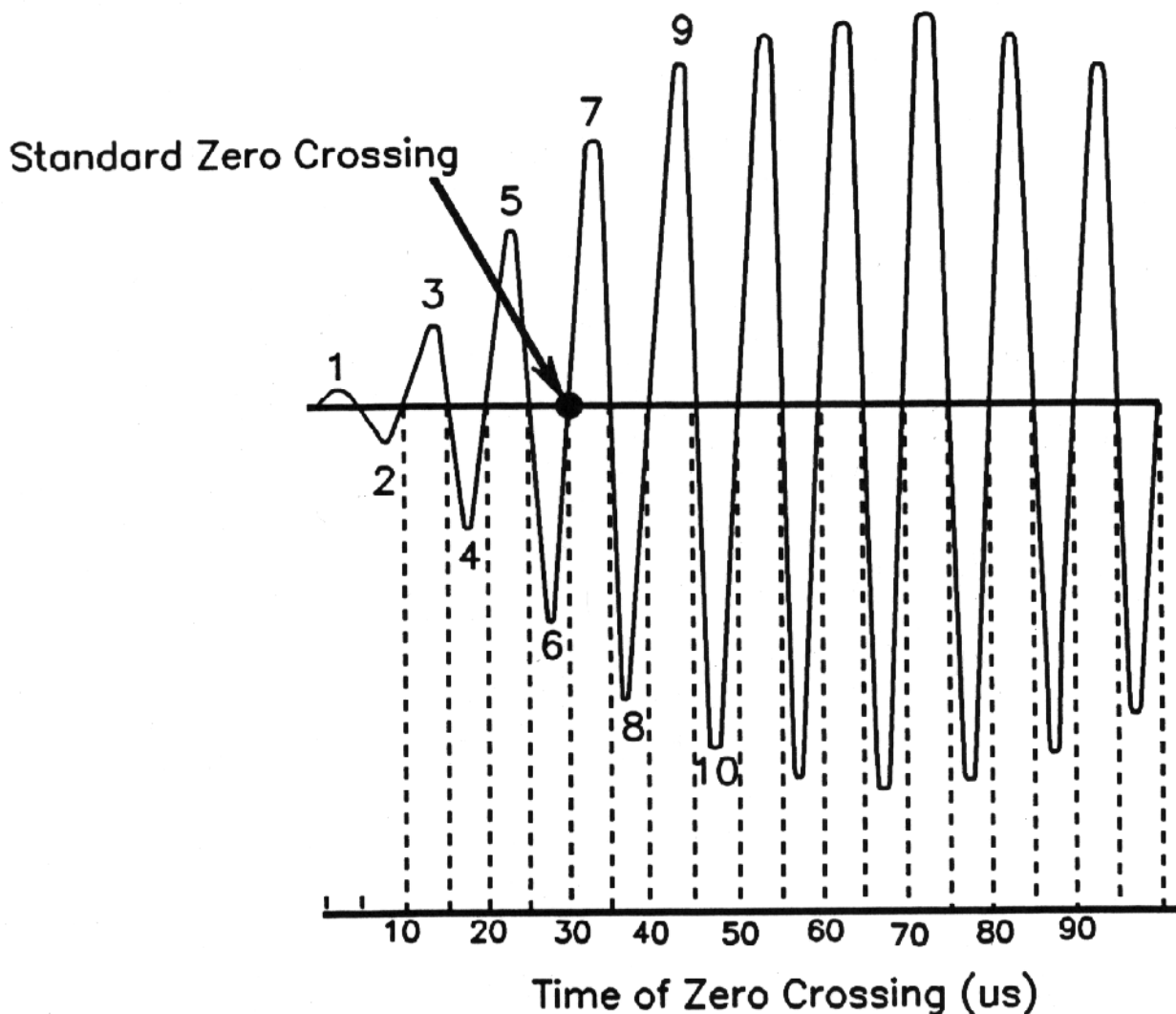


FIGURE 2 - Zero-crossing times and labels for half-cycles. This figure illustrates a positive pulse. For a negative pulse, only the polarity changes, but the labels remain the same.