Pneumograph Channels

- **(U) False Apnea** – Occurs at the top or the middle of the exhalation cycle, often with an immediate recovery.
- **(U) Exaggerated Exhalation** – Similar to a false apnea. It is one cycle of drawn-out exhalation falling below the baseline. It occurs during the asking of the question or at the examinee's answer.
- **(U) Hyperventilation** – 90% of people breathe at 12 to 23 BPM during a polygraph test. If the breathing becomes 20% faster or there is a significant increase in respiration amplitude it is indicative of hyperventilation. The key to gauging normal breathing is to surreptitiously record examinee's respiration pattern.
- **(U) Misplaced or multiple answer-like distortions** – Answer distortions normally occur on the exhalation stroke anywhere from the top to the bottom of the tracing. If the answer distortion is toward the top of the tracing on the inhalation side with an immediate inhalation forming a crown, this is atypical. If answer-like distortions appear in the Pneumograph channels anywhere other than the answer consider the possibility of CM and look for other CM criteria.
- **(U) Loss of Parallelism** – Occurs when the two Pneumograph channels either diverge or converge. The divergence or convergence can be slight or exaggerated and may continue until the next question is asked. This signature is usually accompanied by other CM signatures.
- **(U) New Permanent Baseline** – The new baseline can be up from the previous baseline or down from the previous baseline. It can be dramatic or subtle. Look for frequency and specificity.
- **(U) Cookie-cutter responses** – These are changes that lack variability. To be cookie-cutter they must appear with frequency and specificity. Often appear with clusters of other CM signatures.
- **(U) Dramatic tonic change in rate or morphology** – These are significant waveform changes within and between charts.
- **(U) Bradypnea** – Resting respiration seldom drops below 10 cycles per minute. If breathing drops to 6 or 8 cycles per minute consider the possibility of CM activity or deceptive behavior. Surreptitious observation will assist in identifying this activity.

Electrodermal Channel (Sweat gland activity)

- **(U) Exaggerated Electrodermal Responses** – These are globally out of proportion to the other questions and appear with frequency and specificity. Typically, an EDR that is five times the amplitude of all other EDR responses only occurs about 4% of the time.

- **(U) Downward Spike of the EDR –** Sweat glands do not have parasympathetic innervation therefore the only way the EDR tracing can spike downward is due to a movement. The key to CM activity is to look for patterns of behavior.
- **(U) Labile EDR** – This is an EDR that is messy and nervous with no established baseline. It can occur for several reasons other than CM. A labile EDR can occur due to a poor pretest interview. It can appear because the examinee is deceptive to the relevant issue. It can occur due to an outside issue. And, it can occur because the examinee is performing CM.

Cardiograph Channel (Blood volume and pulse rate)

- **(U) Exaggerated blood volume increases** – The cardiograph tracing rises rapidly and for a prolonged duration. Such rises may occur at relevant questions with guilty suspects but they are not common at comparison questions and are virtually non-existent at irrelevant questions.
- **(U) Secondary blood volume responses** – This is an exaggerated sharp rise in the cardiograph tracing followed by a secondary rise. As with the exaggerated increase above this rarely occurs at a comparison question and is almost non-existent at an irrelevant question.
- **(U) Tachycardia or Bradycardia** – Tonic pulse rate in excess of 100 BPM or less than 60 BPM. Medical issues or certain medications can cause pulse rate to be above 100 or below 60. However, look for other CM behaviors. For instance, a pulse rate of 120 with an exaggerated blood volume increase, a labile EDR and diverging Pneumograph channels at each comparison question (cookie-cutter) (frequency & specificity) is a good indication of CM behavior.

Other Global Criteria

- (U) If one test series is clean with good physiology but the next series is messy with erratic test data, consider deception and/or CM activity.
- (U) If the ACQT contains clean, uncluttered test data, but the first relevant exam is messy and erratic, consider CM or deception.
- (U) If the test data is clean with good physiology but becomes messy at the start of the test (X), and then becomes clean again at the end of the test (double X), suspect CM or deception.