

Just Another Routine Screening Exam - With a Dose of Mescaline

Dale E. Austin¹

In the early hours of a brisk February morning in 2011, Customs and Border Protection (CBP) Special Agent Jenifer Hickory² began her regular preparations in advance of a routine pre-employment polygraph examination she was scheduled to conduct that day. S/A Hickory, an examiner with the CBP Internal Affairs Credibility Assessment Division with six solid years of polygraph experience, was soon to find herself in the midst of a grueling ten-hour day. The ten hours were expended on a subject who, it turns out, walked into the room that day with a great deal of vital information to hide.

The job applicant, whom we will not identify here, was processing for the position of Border Patrol Agent. If he passed his polygraph exam, as well as a variety of other pre-employment checks and requirements, he could expect to become a sworn Federal Law Enforcement Officer, with responsibilities that would include carrying a firearm. Once hired, the applicant would be charged with protecting the nation's borders from illegal entry, and with being alert for the smuggling of contraband, including controlled substances. S/A Hickory had conducted hundreds of these kinds of exams in the course of her six years of experience. Her day's preparation included a review of the applicant's "e-QIP," an electronic version of the government's multi-page background questionnaire called the SF86. As was often the case, this applicant had already successfully completed a

background investigation, as well as his personal interview.

The applicant was at first unremarkable in his appearance and demeanor. He was in his mid-twenties, had graduated from high school, and was employed in the computer field as a sales representative. He was punctual and cooperative, and he displayed an appropriate level of nervous tension. Once S/A Hickory had a chance to fully assess his physical state she determined, thanks in part to 15 years of paramedical experience, that his pupils were slightly dilated.

Tipped that some kind of indeterminate factor had entered the equation for this individual's polygraph test, S/A Hickory sat him down for the one-on-one discussion during the pre-test interview. Once that pre-test interview began, S/A Hickory quickly came to the realization that this exam was going to be anything but routine.

Her examinee first admitted to previous uses of marijuana, as well as psilocybin, the hallucinogenic mushroom. The last use of either drug was four months prior to the polygraph examination, he revealed. The examinee added that he had also provided both drugs to friends, but at no cost to them. He further stated that he had given away a quantity of legally obtained OxyContin. This purported act of charity was done so a friend could "get high," he said.

¹ Dale Austin is a 1980 graduate of the Keeler Polygraph Institute of Chicago, and a 2000 graduate of the Department of Defense Polygraph Institute. He has 31 years of polygraph experience, 20 at the local law enforcement/private level, and 11 years at the Federal level. He is currently a Polygraph Specialist for the DoD.

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The views expressed in this article are those of the author, and not necessarily those of Customs and Border Protection, the Defense Intelligence Agency, or the Department of Defense.

² The name Jenifer Hickory is a pseudonym used here to protect the examiner's identity.

The subject's next pre-test admission involved the illegal downloading of copyrighted material. The examinee admitted he had been doing this for more than 10 years, and he readily admitted that for the last four of these years he had received as much as \$7,000 in cash from sales of illegally obtained software, music, movies, and games.

Following that final pre-test admission, S/A Hickory allowed the examinee to take a break and then formulated the test questions. The following are the question labels and topics used in this examination:

- R24: Withholding serious criminal conduct
- R26: Hiding illegal use of drugs
- R28: Falsification of the application

The examinee returned to the exam room, all test questions were reviewed, and the data were collected. Figures 1 – 4 are screen captures of his charts, which have been edited and condensed for this publication.

From a purely professional standpoint, one need not evaluate the degree of response to any of the comparison questions to assess this examinee's degree of veracity on the relevant questions. S/A Hickory's training and sharp eye prompted her to note consistent, significant responses at all relevant questions.

She quickly realized that she would not need to numerically evaluate the data before initiating a post-test interview. (A standard numerical assessment was conducted, but not until later.) Rather, S/A Hickory immediately decided to engage the examinee to obtain additional relevant information, all of which would prove to be highly valuable to those who would later be tasked with adjudicating this applicant.

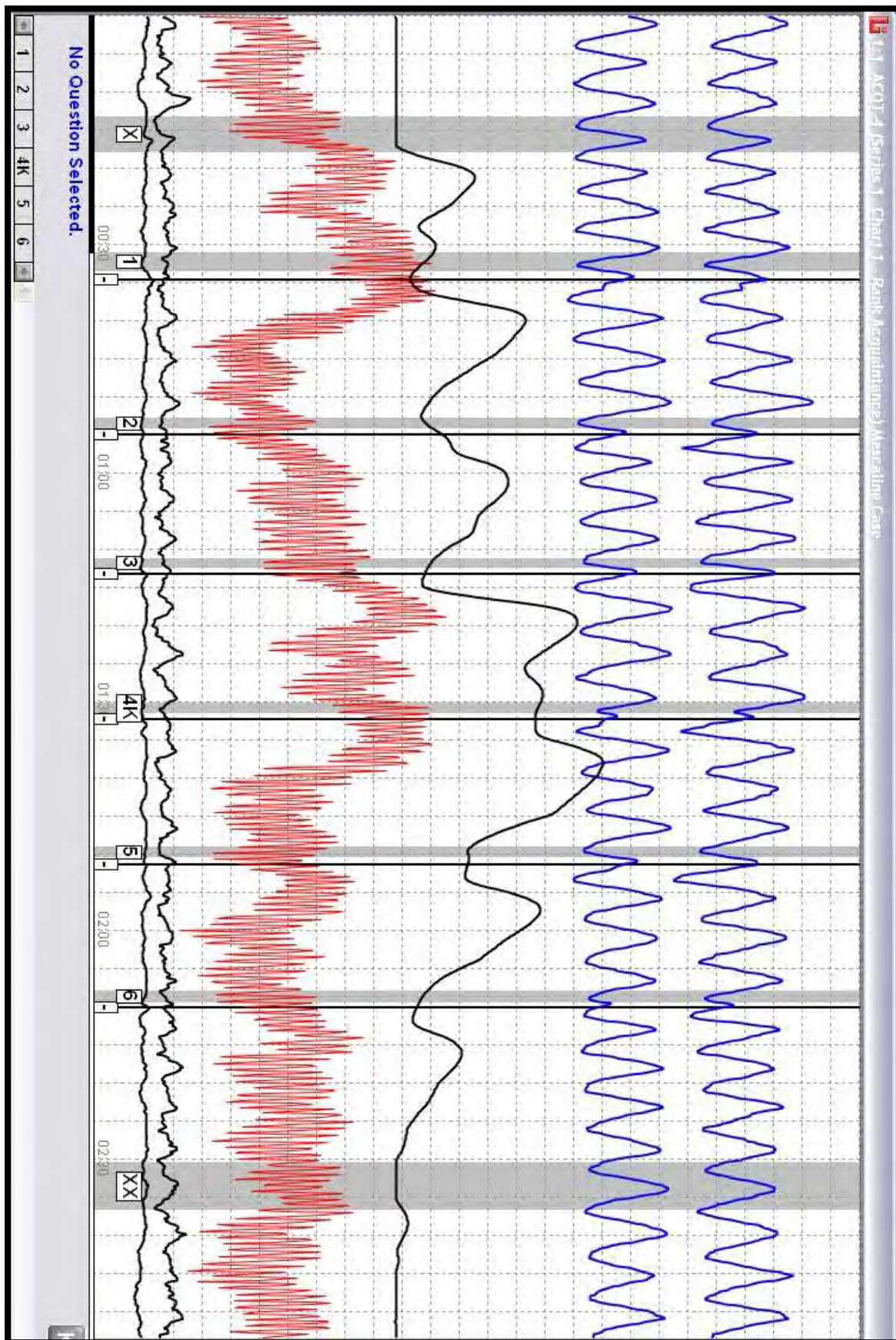
The examinee immediately provided a wealth of new and potentially negative information. He first disclosed that in early 2010 he had purchased half a kilogram of mescaline from a dealer outside the United States. The purchase was transacted over the Internet, and delivery was completed through the United States Postal Service. The examinee glibly explained that using the mail service was "cheaper" than taking delivery by FedEx or UPS.

The examinee then said that later that same year he attempted a second transaction. This time he ordered 200 grams of powdered coca leaves, the base product of cocaine. This sales process was also transacted over the Internet through the same non-U.S. dealer. The coca leaves, however, were seized in Miami by United States Customs Agents. The examinee stated he was tracking the shipment on the website of the Postal Service, but after noting that the shipment had been seized by Customs, he determined it might be in his best interest to take up residency somewhere else. So he moved.

He wasn't finished with this new set of admissions. Later that same year, he said, he provided some of his friends with mescaline, again at no cost to them. He estimated that he had used mescaline ten times in his life, but then said something that made everything fall into place for S/A Hickory. The last time he used mescaline, he said, was about an hour before he arrived for his polygraph. He stated he added six spoonfuls of the powder into a glass of water, stirred it up, and then drank the mixture. He added he did this on an empty stomach in order to obtain maximum effect as quickly as possible. Previous uses had taught him that mescaline induced a relaxed sensation. His goal on test day, he stated, was to take advantage of the drug's calming effect. In fact, he hoped it would calm him enough to keep his blood pressure "level," helping him to pass the test. The actual result, he stated during post-test, were mild visual distortions, described as halos around lights, a softening of the walls, and more vibrant colors.

The revelations kept flowing. The examinee further stated that he still had about 200 grams of mescaline at his house. S/A Hickory conferred with her management and then contacted local law enforcement. The police were, of course, happy to assist, and two detectives arrived at the testing facility within a half hour. The detectives were escorted to a viewing area, where they observed S/A Hickory conduct a customary recap of admissions. The detectives were then introduced to the examinee who confirmed that he had mescaline at his home and in his car. His car was conveniently parked in the Customs and Border Protection parking lot.

Figure 1. Chart 1, Acquaintance Test



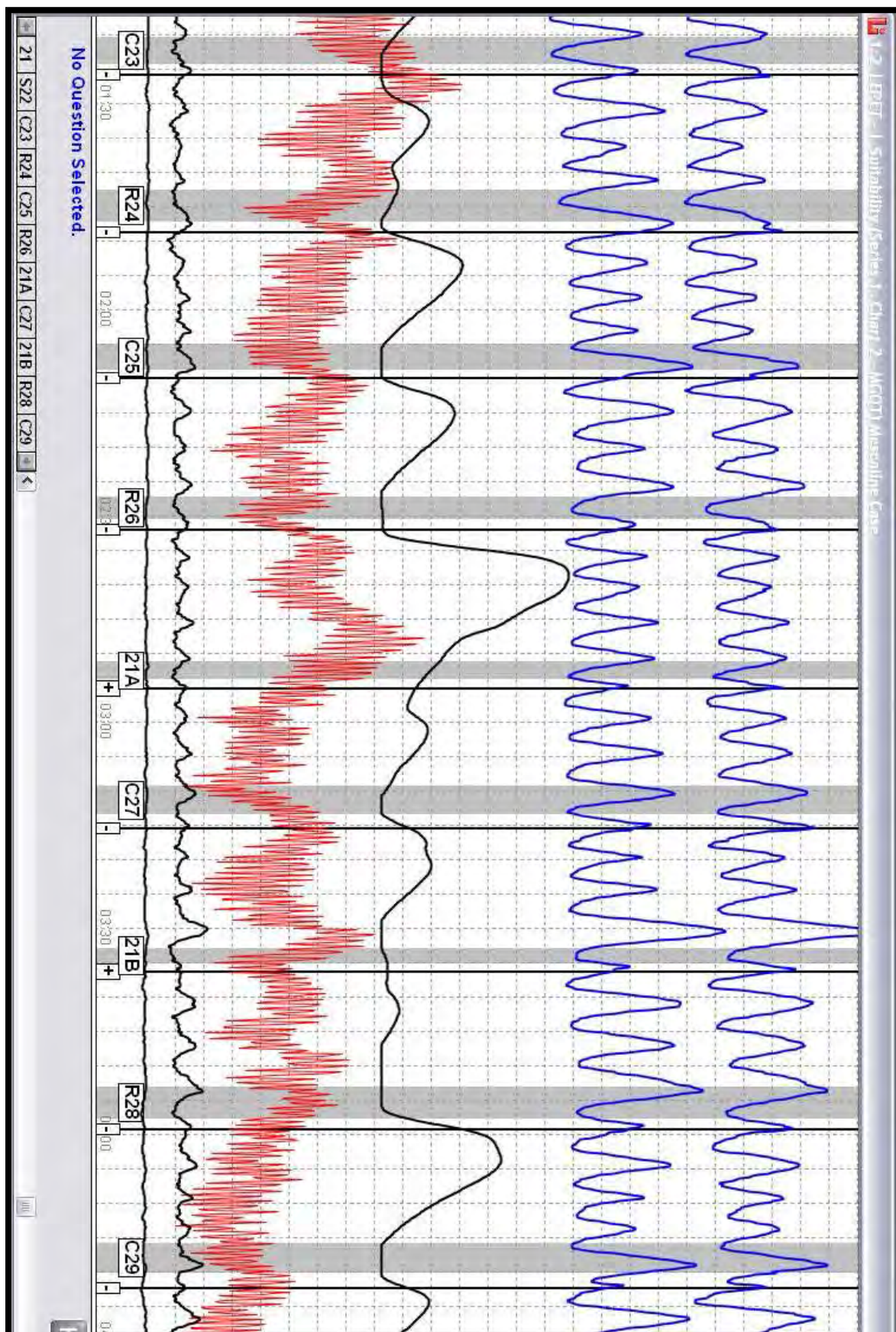


Figure 2. Chart 2

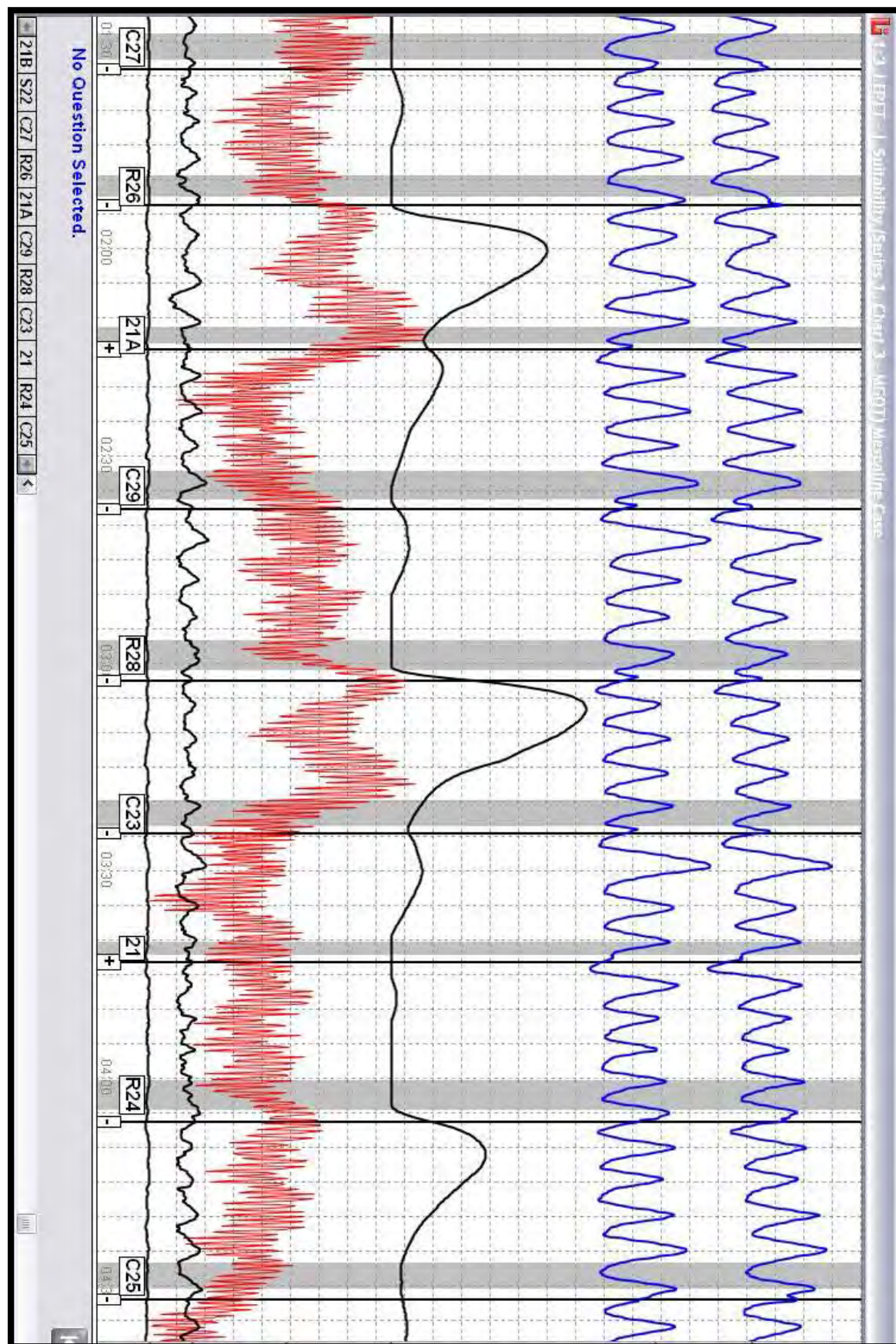
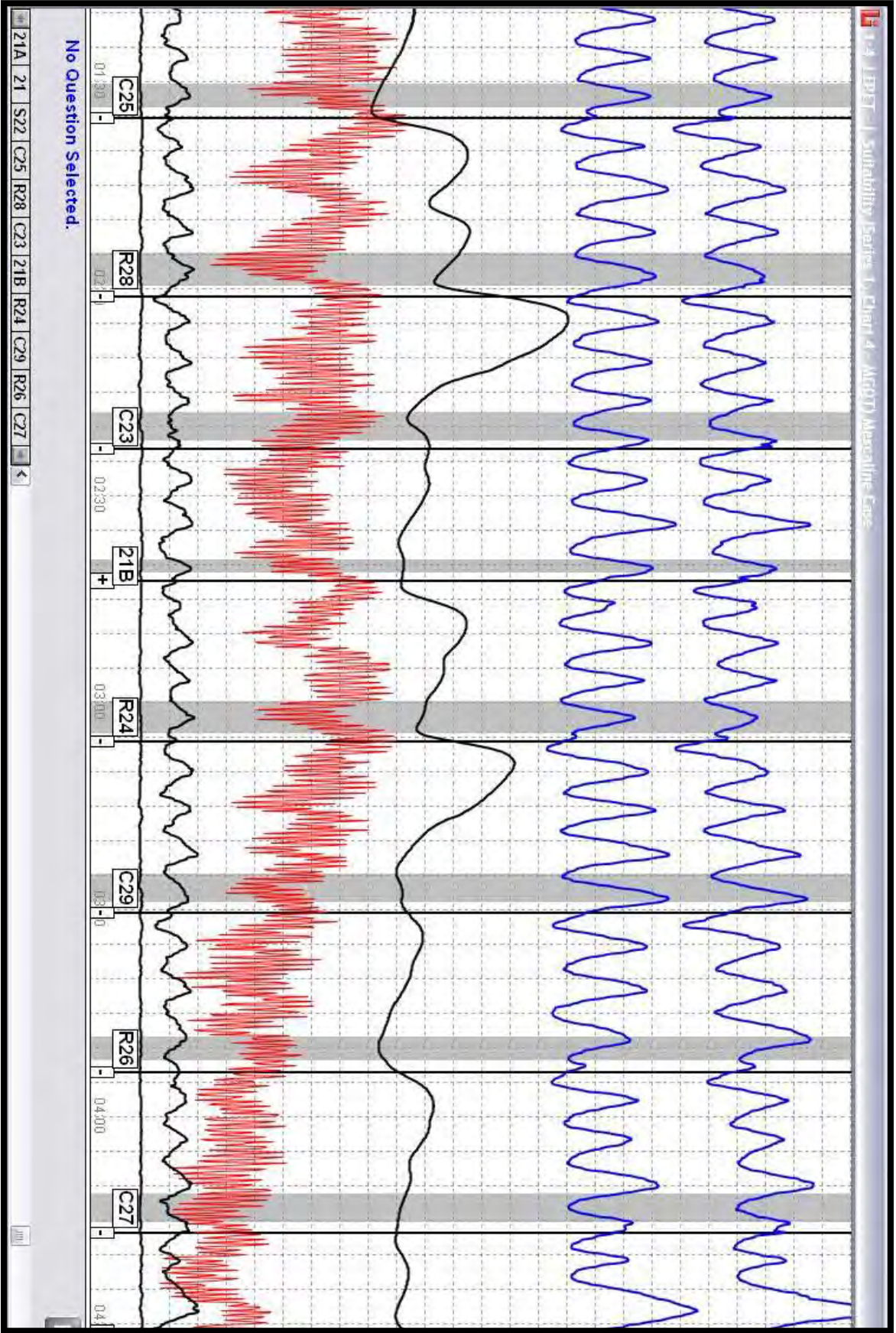


Figure 3. Chart 3

Figure 4. Chart 4



From there the case was fully in the hands of the local detectives, who obtained search warrants for the vehicle and the residence. Both searches resulted in the recovery of possible mescaline,³ and the examinee now faces prosecution under state law. His case has also been referred to multiple Federal Agencies to determine if Federal prosecution is warranted.

Lessons Learned

This subject's case emphasizes what we already know about screening exams, but sometimes tend to forget. Examinees can present as appropriately dressed, cordial, polite and cooperative. They may also provide admissions against self interest before we even collect the first chart. But do we ever really know what an examinee may be withholding? Security managers and adjudicators often tell us that when compared with background checks, psychological evaluations, and interviews, the polygraph process provides the greatest quantity and quality of adjudicable information. We are thus reminded that a routine pre-employment exam--even when all signals point in a positive direction--may be anything but routine. We are cautioned to keep digging, as an examinee's first admissions rarely amount to everything he or she might have to say.

In this particular instance, the examinee's intention was to diminish responses to relevant questions to which he knew he was going to have to lie. He believed that using mescaline for its alleged calming effects may have seemed like the best course of action to circumvent the polygraph test. In reality, the chemistry of mescaline and the drug's effects on one's physiology rendered his ill-informed choice a pointless attempt to defeat the polygraph. A scientist at the National Center for Credibility Assessment (NCCA) explains mescaline's effect as follows:

Mescaline is a psychoactive substance that primarily binds to the serotonin receptor 5-HT_{2a} with secondary binding to the serotonin 5-

HT_{2c} receptor. Serotonin is one of the main neurotransmitters in the brain. The 5-HT_{2a} receptor is the main target for psychoactive drugs like LSD, mescaline, psychedelic mushrooms, etc. Serotonergic receptors are plentiful in the pre-frontal and somatosensory cortices. The 5-HT_{2c} receptors modulate dopamine release in the pre-frontal cortex, hippocampus, hypothalamus, and other regions of the limbic system. Over activation of the 5-HT_{2c} receptors usually results in anxiety and also reduces dopamine release. Serotonin modulates the sympathetic activity known as the fight or flight syndrome. Over-activation of this neurotransmitter causes anxiety and depression. Hallucinogenic effects are usually due to 5-HT agonism and resultant communication with dopaminergic channels in the pre-frontal cortex. Use of mescaline would not result in a calming effect but could induce anxiety and delusions dependent on the dose level. Mescaline results in sympathetic arousal in the peripheral nervous system. Thus, responses to relevant questions should not be impaired.

We know that the examinee was initially withholding information regarding illegal drug use. Illegal drug use, of course, is also relevant to the question of having engaged in criminal conduct. Further, few examinees provide in their application a comprehensive disclosure of their illegal drug use. Depending on the examinee's differential salience, his attention during the data collection phase of the polygraph might gravitate toward any one or combination of the three relevant questions. Based on the information provided by the NCCA scientist, the examinee's chart data should display significant responses to at least one of the relevant questions. Even a cursory review of the data would reveal that this, in fact, occurred. And S/A Hickory would likely concur with the scientist that the use of mescaline failed to suppress the examinee's responses.

³ As of submission date, the seized powder has not been confirmed as mescaline.