CM Refresher Training

National Center for Credibility Assessment

• Discuss classification of CM signatures

    • DoD Instruction C5240.08

    • When
    • Why

Countermeasures Today

What's on the Internet regarding CM?

UNCLASSIFIED   2

• **Google "Beat a Polygraph" and see what comes up**

• **Key point: It is no longer unusual for an examinee to do an internet search on polygraph prior to a test**

• **Virtually all sites discuss CM**

• **Most sites recommend:**

     • **Controlled breathing**
     • **Behavioral CM**
     • **Mental CM**
     • **Tongue biting**
     • **Toe presses**

• **Recommendations based on CM research primarily by Honts**

Website Search

- ** Antipolygraph.org
- ** Polygraph.com
- Wikipedia.org
- Wikihow.com
- Police-test.net
- Howstuffworks.com
- Skepdic.com
- Lifehacker.com
- Beataliedetectortest.com
- Expertpolygraphtraining.co
- Wired.co.uk

- Wisegeek.com
- Borderlandbeat.com
- Allgov.com
- 99Reports.com
- Squidoo.com
- Polygraphplace.com
- Truthorlie.com

UNCLASSIFIED 3

• The listed websites are a sampling of what is on the internet regarding how to beat a polygraph.

• The first two sites containing the asterisks will be covered in greater detail – most other sites refer back to these two.

• Look at Antipolygraph.org first - most professional site.

• The sites author is not motivated by money – motivated by ideology, and possibly revenge

• Since he failed at least two polygraph examinations

• **George Maschke resides in the Hague and is responsible for the site**

• **Chapter 4 - T*he Lie Behind the Lie Detector***

  • **Detailed instructions on how to use polygraph CM to protect oneself against a false positive**

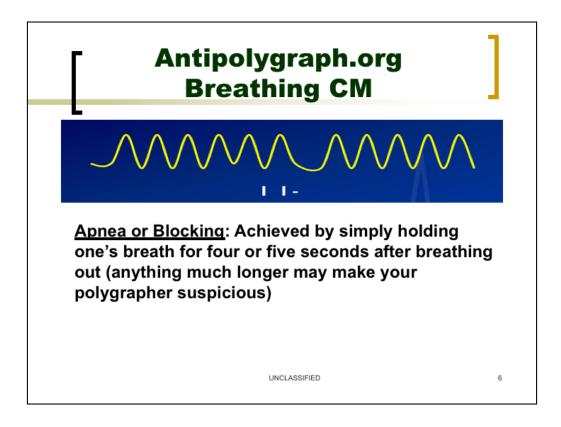 • *Or in the case of being a guilty liar – How to beat the polygraph test*

Antipolygraph.org Breathing CM

- Breath normally 15 to 30 BPM
- Pick a range that is comfortable for you
- Maintain this cycle from the time the PN tubes are place on until taken off
- At PLC/DLC/Irrelevant in RI – pick one of five DoDPI (NCCA) diagnostic criteria
  - Criteria on the next 5 slides
- Mirror this criteria for 5-15 seconds
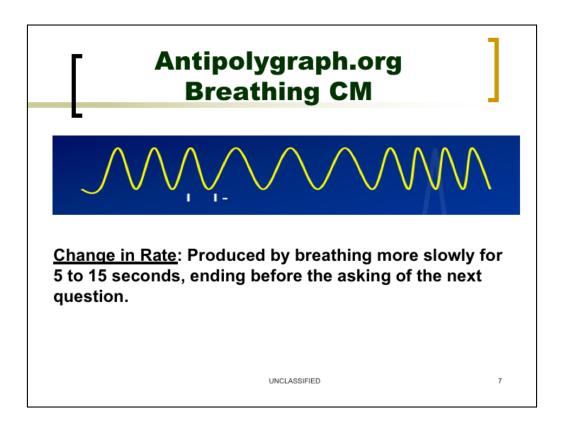
UNCLASSIFIED   5

- **These instructions come from the *Antipolygraph.org* website**

- **Virtually all antipolygraph sites follow this websites lead**

- **Different sites may add an item or two:**

  - **e.g., Tack in shoe, antiperspirant on fingers and hands**
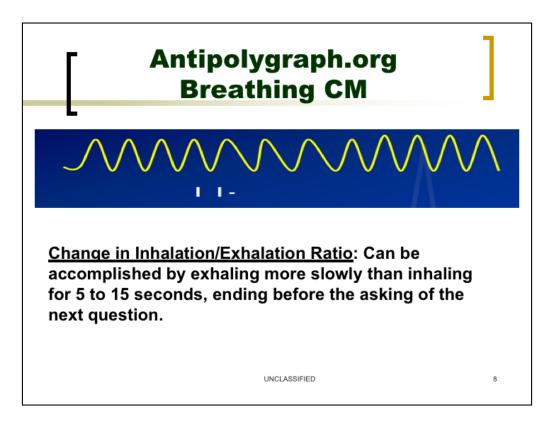
- **The key to the next 5 slides: (Apnea/Blocking)**

    - **Read what antipolygraph.org instruction for each tracing**

    - **Do you think examinee physiology will mirror the picture?**

        - **Particularly with no bio-feedback**

- **Criteria taken from NCCA handout**

    - **Do you think contrived physiology looks contrived?**
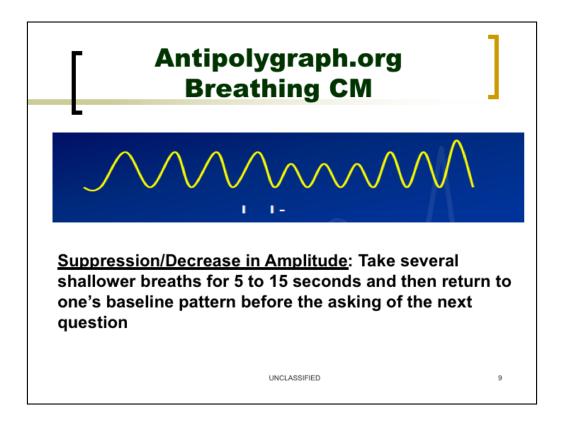
    - **Look for patterns of behavior**

Antipolygraph.org Breathing CM

Change in Rate: Produced by breathing more slowly for 5 to 15 seconds, ending before the asking of the next question.

UNCLASSIFIED 7

•**Question:** If the examinee has deliberately slowed their breathing for 15 seconds (*they will often wait until they hear the next question)* and you (the examiner) ask a relevant question – **What is going to happen in the PN channels at the relevant question?**
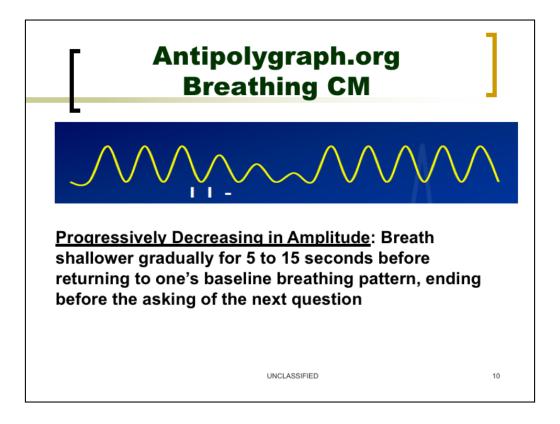
• **The answer:**

• **For every action there is a reaction. (Discuss)**
• **A irrelevant question should be asked.**

Antipolygraph.org Breathing CM

Change in Inhalation/Exhalation Ratio: Can be accomplished by exhaling more slowly than inhaling for 5 to 15 seconds, ending before the asking of the next question.

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• **Follow the directions given on the *antipolygraph.org* site**

• **What do you think the PN tracings will actually look like?**

•**Do you think that many will tighten stomach muscles while trying to follow this instruction?**

Antipolygraph.org Breathing CM

Suppression/Decrease in Amplitude: Take several shallower breaths for 5 to 15 seconds and then return to one's baseline pattern before the asking of the next question

UNCLASSIFIED 9

• **Remember – other instructions by the website is to control breathing from PN tubes on until PN tubes off.**

•**This instruction says to take several shallower breaths for 5 to 15 seconds then return to baseline.**

• **What is a "shallower breath" and what does it look like on a polygraph instrument?**

Antipolygraph.org Breathing CM

Progressively Decreasing in Amplitude: Breath shallower gradually for 5 to 15 seconds before returning to one's baseline breathing pattern, ending before the asking of the next question

UNCLASSIFIED 10

• **This is another instruction that is easily read but may not be easy to replicate,**

  • **Look at the picture – now *gradually* breath shallower**

  • **Are you convinced your recorded physiology will mirror the picture?**

Antipolygraph.org
Cardio/Electrodermal CM

- In addition to breathing CM pick 1 of the following:
- Mental CM:
  - (Pick arbitrary number) count backward by 7s
  - Think exciting thoughts (8-20 seconds)
- Tongue biting:
  - Side of tongue hard enough to cause pain
- Suggests <u>not</u> doing AS
- Target Key on ACQT

• **Mental CM**: **All websites discuss mental CM (Excitable image or math problem requiring concentration**

    • **Add to controlled breathing – 1 of the breathing criteria plus a mental CM**

    • **What do you think will happen to the PN channel?**

•**Tongue biting – Cheek biting or pushing tongue against teeth or the roof of the mouth – Depends on the website**

• **Anal sphincter – Most except *polygraph.com* suggest not using if the cushion is present**

• **ACQT – Most suggest attacking the ACQT key**

• **Question – If you see CM activity at the key should you identify the activity to the examinee?**

Antipolygraph.org
CM & the R/I Test

- Site suggests attacking a different "relevant" question over several charts in order to avoid a pattern
- He also suggests using behavior CM
    - Dress professionally
    - Have professional reading material
    - Mirror the examiner
    - Compliment the examiner (don't go overboard)
    - Be on time – Do not cancel

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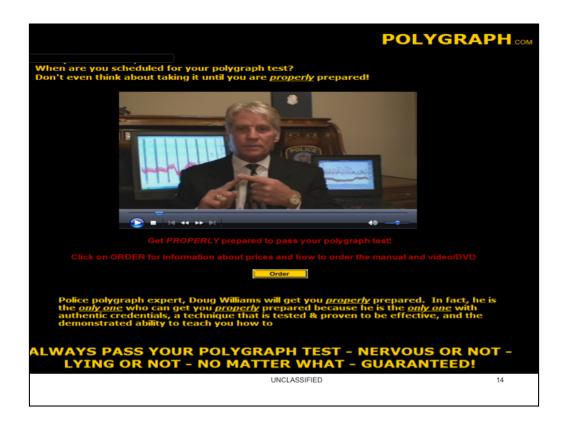
12

• Some sites call the irrelevant questions 'control' questions and suggest that they be attacked.

• Do you think behavioral CM help the examinee?

Antipolygraph.org Post Test Interview

- Be concerned and puzzled – offer some explanation that cannot be considered an admission:
- "All I can think of is that I've always felt guilty when I'm accused of something."
- "The only thing that comes to mind is that I'm in the middle of reading a Tom Clancy novel which involves espionage/drug dealing."
- "I recently heard that an old childhood friend died of a drug overdose. I haven't seen him in years. I never imagined he would grow up to become a drug user."

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• **The 3 excuses were pulled from *antipolygraph.org***

• **Do you think these excuses are sufficient to warrant a second series?**

• **Are they sufficient to warrant a 3rd series?**

• *Polygraph.com* is another antipolygraph site that many sites quote attempt to mirror

     • Motivation - money

• Doug Williams spent time as a polygraph examiner in the late 1970s.
     • That was 30+ years ago
     • Poly School he attended used poly as an interrogation tool

• His web site changes every few years

• The breathing CM in his booklet are similar to the breathing criteria in Antipolygraph.org

• Read instructions on how to reproduce the pictured criteria, practice the criteria with your polygraph instrument and see what you produce.

Polygraph.com
Manual Cost: $19.95

THIS IS YOUR MANUAL

PRINT IT OFF NOW!!!!!

HOW TO STING THE POLYGRAPH
by Doug Williams

STING PUBLICATIONS
P.O. BOX 720568
NORMAN, OK 73070
Phone: 405/226-4856
Email: doug@polygraph.com
Website location: http://www.polygraph.com/

Click Here to view the How to Sting the Polygraph video.
(You may view this video up to 3 times during your 2 day period.)

HOW TO STING THE POLYGRAPH

My name is Douglas Gene Williams. I was a detective sergeant with the Oklahoma City Police Department and ran the polygraph section of the internal affairs division for seven years. I administered thousands of tests for the Oklahoma City Police Department, and for many other agencies including the Secret Service and the FBI. I have also administered hundreds of tests as a private polygraphist. What that really means is that I used the polygraph to coerce a confession from people I was after, and

UNCLASSIFIED   15

- **His CD with the manual is $49.95**

  - **Many sites offering similar services**

- **If you come to his location in Oklahoma he will train you in CM for $1000**

- **For $3500 + First Class airline ticket + 4 star hotel + expenses he will come to your location and train you in CM**

- **Key – If you get caught – do not confess**
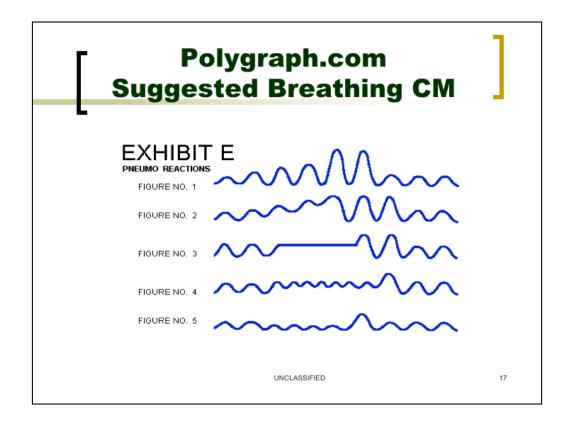
Polygraph.com
Manual Cost: $19.95

CAUTION, a few years ago the polygraph industry came up with a "sensor pad" that you sit on while taking the test. But don't worry...it's a joke, and it won't detect anything if you will be VERY careful, VERY subtle, tighten VERY slowly, and NEVER tighten more than about half tension. The only way this pad would work is if they inserted it "where the sun don't shine". But if you are really paranoid, I suggest you put a towel or something in your drawers to act as a barrier between the sphincter and the so-called "sensor pad". (I know one guy who used his wife's kotex pad - I guess he was working on the theory that you can't be too careful.) Just remember it is almost impossible to be too subtle and it is very easy to over do it, so just take it easy.
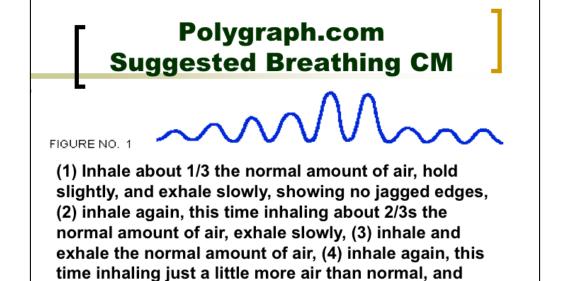
UNCLASSIFIED   16

• This warning taken from poly.com manual

   • The warning is repeated several times throughout the manual

   • I wonder why?

• Have everyone tighten their sphincter VERY slowly to ½ tension. Do you now release slowly or quickly release?

• **These are the 5 breathing criteria identified in the manual for sale on polygraph.com**

• **Compare them against the 5 NCCA criteria**

• **What is the difference?**

   • **Apnea is the same – but Williams says to not use it**

   • **Figures 1 & 2 are <u>not </u>listed in antipolygraph.org site**

   • **Figures 4 & 5 will lead to forms of suppression but the instructions are different from antipolygraph.org**

• **Will look at breathing individually next few slides**

• **Attempting to create a "stair-stepping" increase in amplitude (used to be a scorable criteria) 15 years ago**

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**Polygraph.com
Suggested Breathing CM**

FIGURE NO. 2

Figure 2 is manipulated by inhaling more than you exhale each time in a series of 5 small breaths until, with your last breath; you fill your lungs with slightly more than the normal amount of air, just like you are frightened and gasping for breath. You then take 2 deep breaths and resume normal breathing

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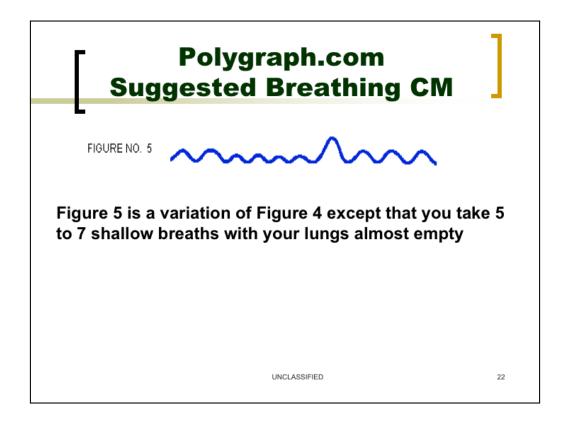
• **The key here: If the examinee appears to be "gasping for breath" like a fish out of water…probably a CM**

• **Consider what an examinee's physiology might look like following these directions**

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**Polygraph.com
Suggested Breathing CM**

FIGURE NO. 3

Figure 3 is too obvious so don't use it. It is true that it is the easiest, but it is also the least desirable

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• **Real apneas are very rare.**

• **When seen they are usually occur at a relevant question – not a comparison question or an irrelevant question**

    • **Williams most likely had a number of his clients get caught by using this CM**

    • **And that is the reason he is telling his clients not to use this CM**

**Polygraph.com
Suggested Breathing CM**

FIGURE NO. 4

Figure 4 is manipulated by inhaling a normal amount of air and then take a series of 5 to 7 shallow breaths with your lungs partially full

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• **If it looks like a kings crown with multiple diadems it is probably this CM**

Polygraph.com
Suggested Breathing CM

FIGURE NO. 5

Figure 5 is a variation of Figure 4 except that you take 5 to 7 shallow breaths with your lungs almost empty

• **Push most of the air out of your lungs and take 5 to 7 shallow breaths - What do you think the tracing will look like?**

• **Attach a non-polygraph trained person to your instrument and have them read the directions for each figure and do it. Look at the results**

• **If the results look normal to you – you are getting beat**

Polygraph.com
Timing is important

- Answer the comparison question (or irrelevant if RI) then react 7 to 9 seconds
- Mix PN reactions shown in Figures 1 to 5 using a different PN reaction for each comparison question
- 2nd series – just manipulate the CV channel
- 3rd series – use only mental CM
- If concerned about getting caught just use mental imagery at every comparison question

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• These instructions have changed repeatedly in williams manual

• 2nd series where he says to "just" manipulate the CV channel – he is talking about doing the AS (VERY SUBTLE)

    • He also suggests placing a towel or heavy duty Kotex in your underwear separating the "stinger" from the movement sensor

Polygraph.com
Other CM Activity

- Attack the key on the ACQT
- Use AS and breathing CM together
- Mental CM – count backwards from 700 by 3s
- Mental CM – frightening mental image
- Don't take drugs
- Don't put a tack in your shoe
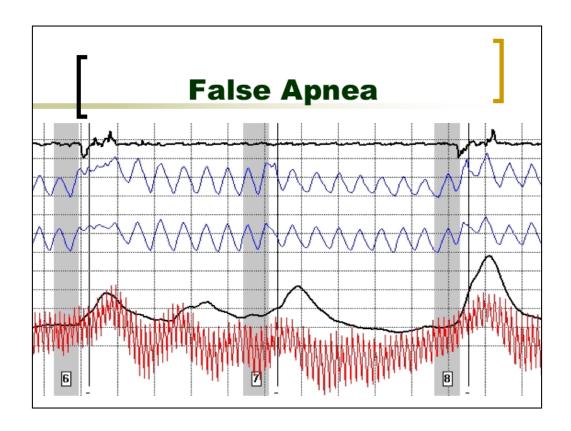
UNCLASSIFIED   24
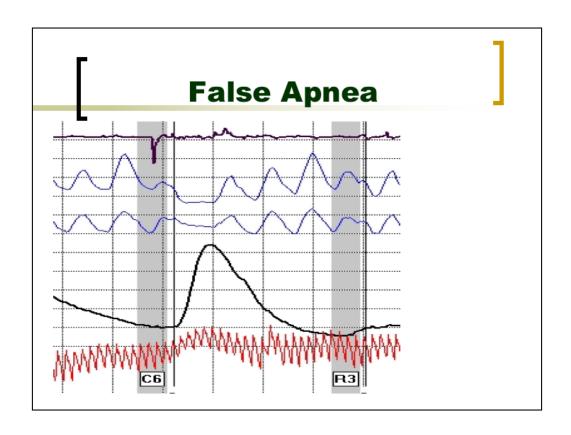
• **Additional instructions found in poly.com manual**

False Apnea
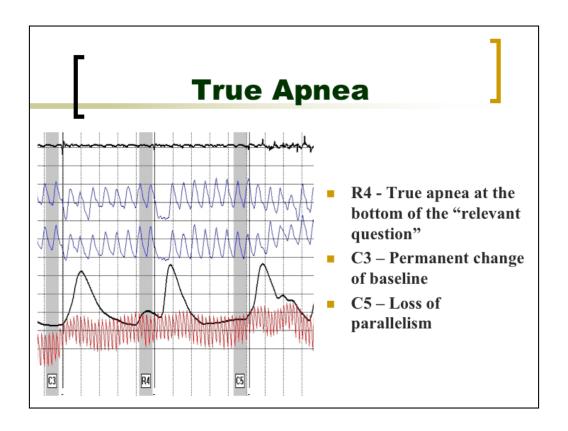
- **False apnea occurs at the top or middle of the exhalation cycle**
  - Often immediate recovery

- **True apnea occurs at the bottom of the exhalation cycle**
  - Unless frequency and specificity observed
  - Usually at relevant questions <u>not</u> comparisons

False Apnea

- **AS easily identified**

- **False apnea could be the result of the AS**

- **Or, Figure 4 - inhaling a normal amount of air and followed by 5 to 7 shallow breaths with your lungs partially full**

False Apnea
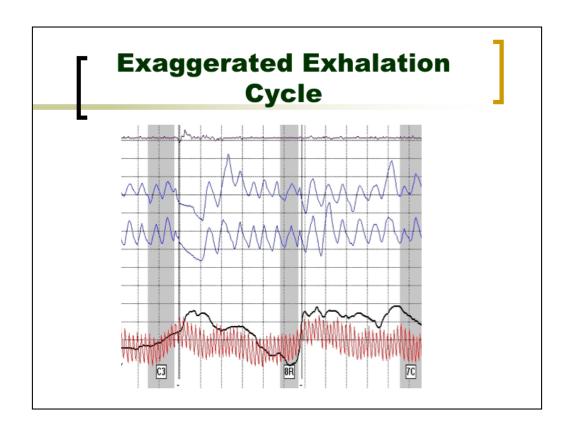
- **Upper PN the apnea is at the bottom & the lower PN the apnea is at the top**

- **AS might be responsible for the apnea (cognitive processing)**

- **PLCQ – not it is answered about a second later than the relevant – Why?**

True Apnea

- **R4 - True apnea at the bottom of the "relevant question"**
- **C3 – Permanent change of baseline**
- **C5 – Loss of parallelism**
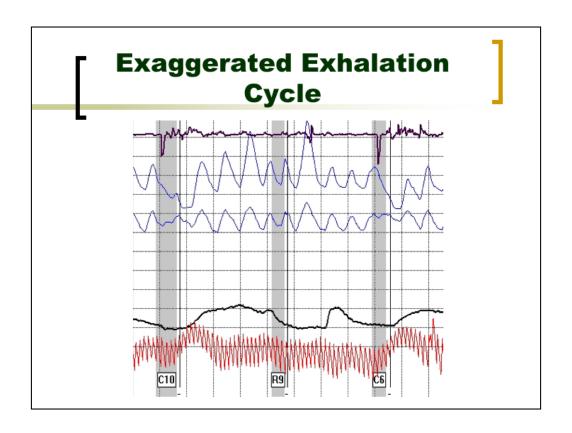
• **Would you question whether the true apnea was a CM if it appeared at 2 or more relevant questions? Comparison questions?**

Exaggerated Exhalation Cycle

- Similar to false apnea
- One cycle of drawn-out exhalation
- Often falling below the baseline
- Immediately followed by a single deep breath
- Occurs during question asking or at the answer

Exaggerated Exhalation Cycle

• MV in sensor pad –

• The exaggerated exhalation falls below the baseline and pulls either one or both PN channels off the baseline

• Do you see anything strange about the EDA at the relevant question?

> • The drop at R8 as the question is being asked is probably a MV.

> • Did the MV cause the software to pull the EDA up in order to re-establish a baseline?

Exaggerated Exhalation Cycle
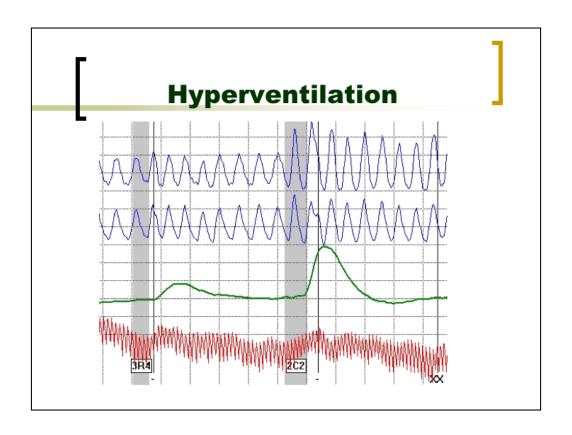
- **Top PN exaggerated exhalation**

- **Bottom PN false apnea**
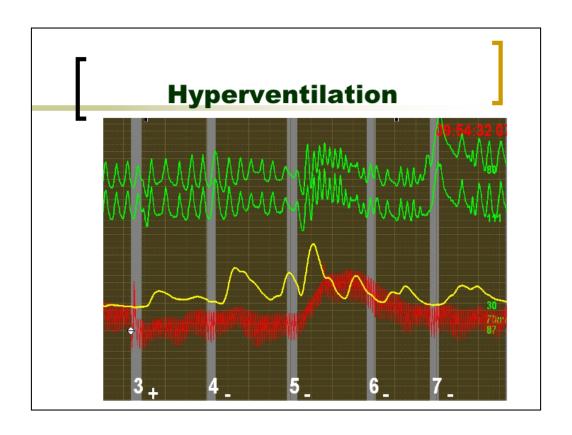
Hyperventilation

- 90% breathe 10 to 23 BPM during polygraph testing.
- Gauge normal breathing from surreptitious recording, patterns on non-relevant charts, respiration within charts.
- 20% faster on relevant charts is an indication of hyperventilation.
- Significant increase in respiration amplitude indicative of hyperventilation.

• Antipolygraph.org informs readers to control breathing in this range from the time the PN tubes are placed on until they are taken off

• Dick Arther – 32,000 charts – breathing at 6 to 8 BPM - DI breathing (contrived)

• John Reid found the same

• Very fast breathing is unusual

Hyperventilation
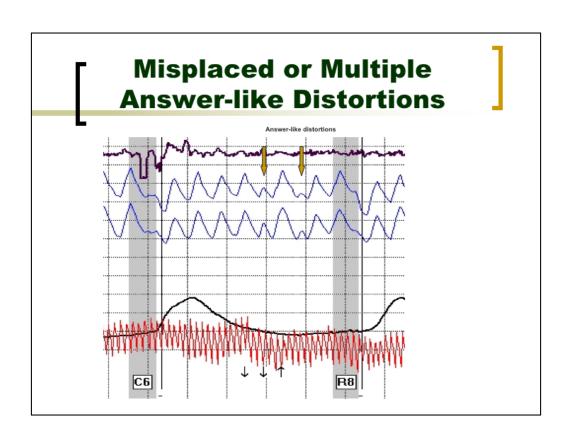
- MI called this DLC breathing

    - Note the late answer

    - MI suggested that this breathing is the result of the cognitive effort to visualize the directed lie

    - It was not considered a CM – but the test data was not evaluated either

Hyperventilation
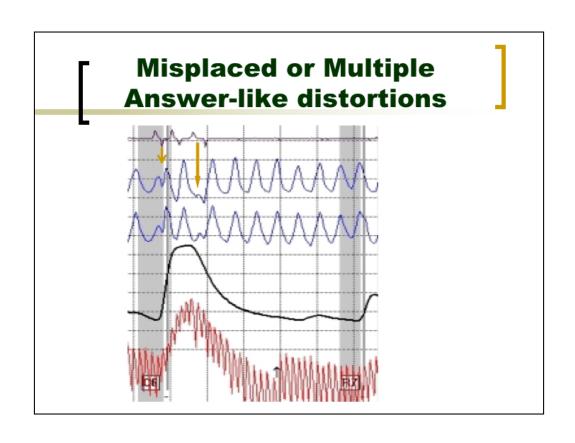
• This could be poly.com suggesting:

> • Figure 4 is manipulated by inhaling a normal amount of air and then take a series of 5 to 7 shallow breaths with your lungs partially full

Misplaced or Multiple Answer-like Distortions
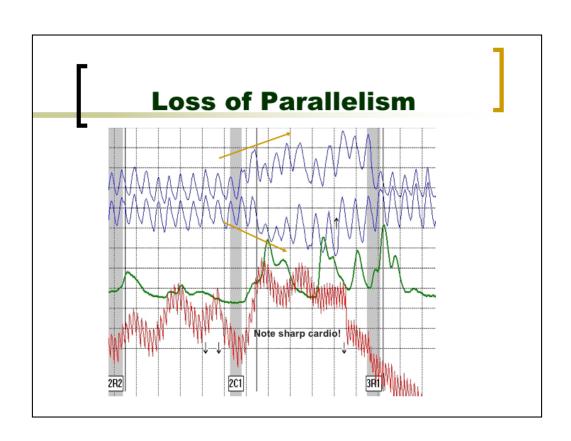
- Answer distortion normally on exhalation stroke anywhere from top to bottom.
- Should be timely.
- If the answer is toward the top of the tracing with an immediate inhalation forming a crown – This is atypical.
- Answer-like distortions in the PN channels are those distortions that show up anyplace but the answer.

• Answer-like distortions were occasionally observed by Paul & me in Barland's mental CM study

• We surmised that examinee counting backwards were moving their throat muscles.

• If field data we occasionally see answer-like distortions when tongue bites occur.

Misplaced or Multiple Answer-like Distortions

Answer-like distortions

Misplaced or Multiple Answer-like distortions
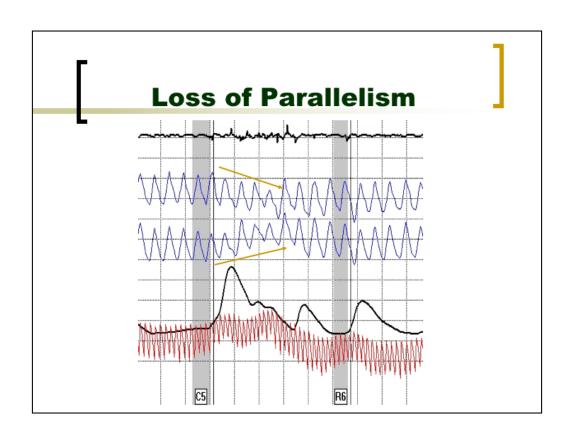
Loss of Parallelism
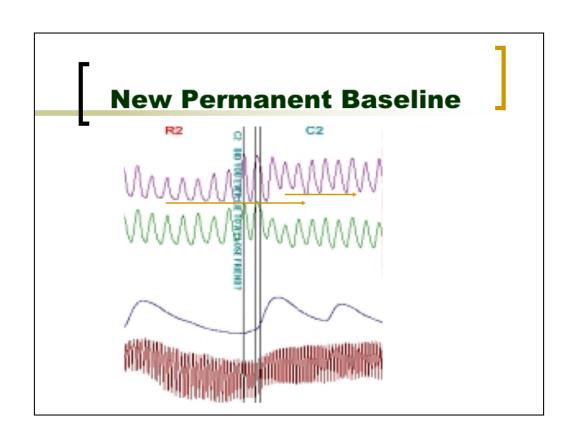
- PN channels diverging or converging
- Can be slight or exaggerated
- Usually accompanied by other CM signatures
- Begins during the question asking or at the answer and can continue for 15 seconds or more

Loss of Parallelism

Note sharp cardio!

2R2   2C1   3R1

Loss of Parallelism
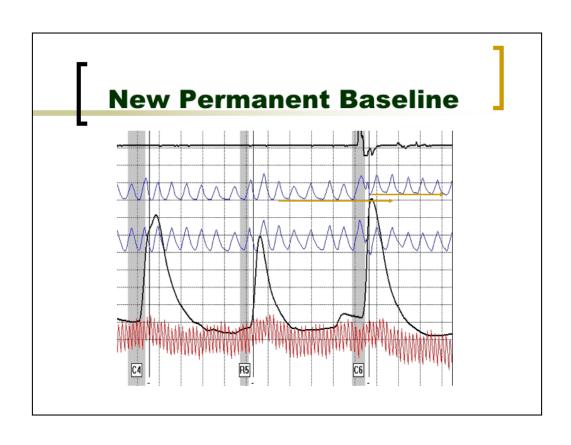
New Permanent Baseline

- The baseline can be up or down

- Normally at comparison questions

- Can be dramatic or subtle

New Permanent Baseline

New Permanent Baseline
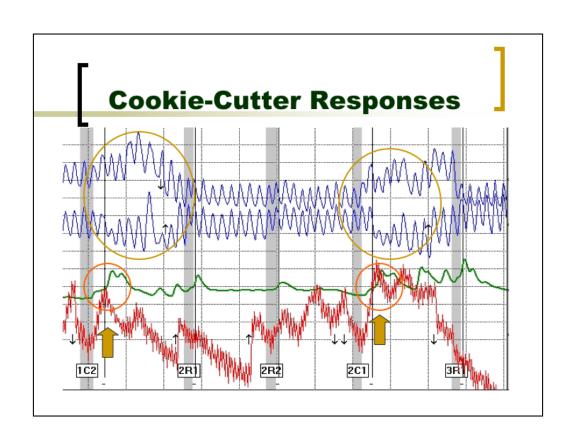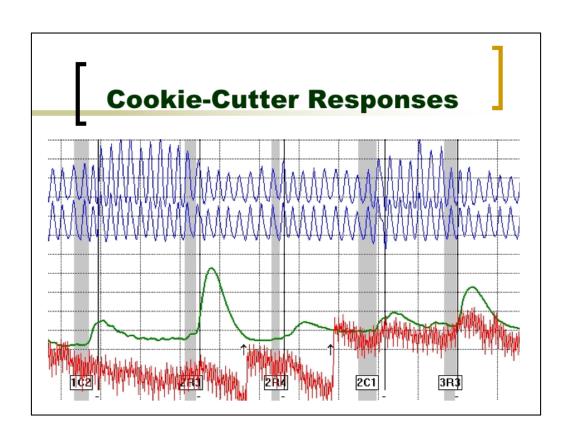
Cookie-Cutter Responses

- Lack of variability
- Can occur in any channel
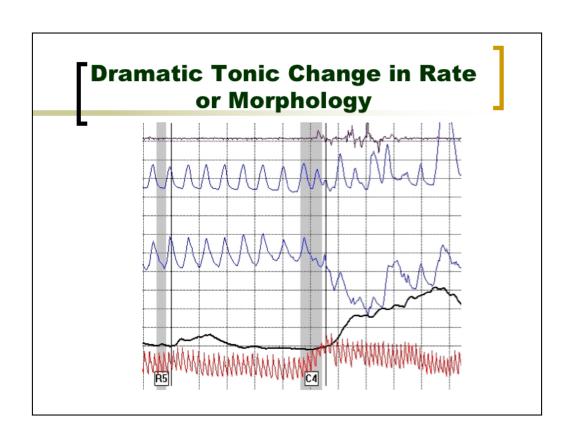
• This signature has been specifically identified on antipolygraph.org site.

    • The suggestion is not to use the same CM at every comparison question

Cookie-Cutter Responses

Cookie-Cutter Responses
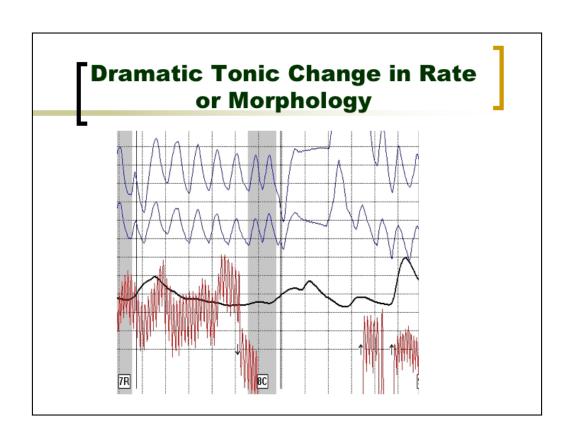
Dramatic Tonic Change in Rate or Morphology
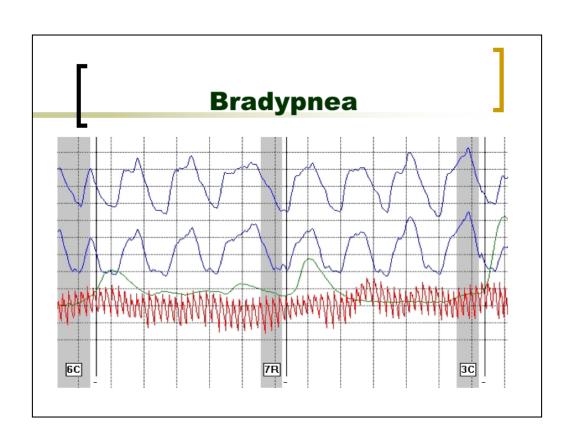
- Significant changes in waveforms
- Within or between charts

Dramatic Tonic Change in Rate or Morphology

Dramatic Tonic Change in Rate or Morphology
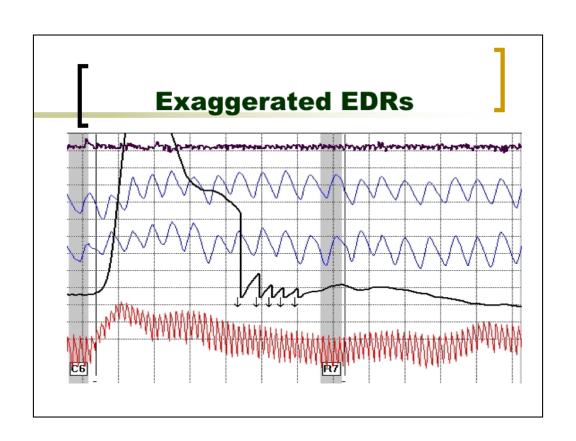
Bradypnea
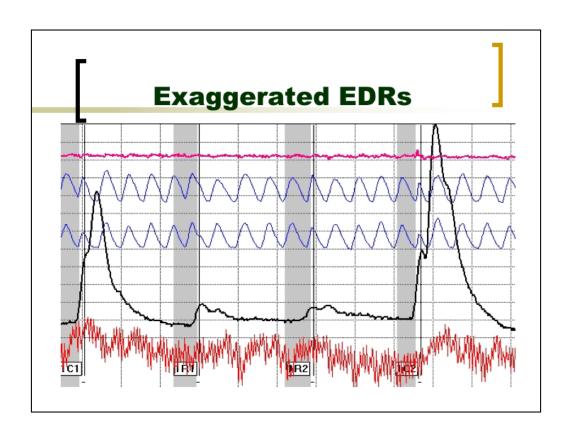
- Resting respiration seldom below 10 cycles per minute
- Rare exceptions
- Observations

Bradypnea

Exaggerated EDRs

- **Globally out of proportion**
  - **5-times the amplitude**
- **Frequency**
  - **Seen only 4% of the time**

Exaggerated EDRs

Exaggerated EDRs

1C1   1R1   1R2   1C2
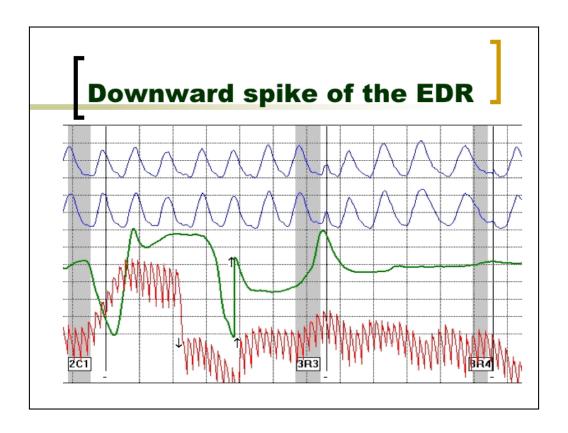
- **Toe press – picked up in cushion at 1C2**

Downward Spike of the EDR

- EDR does not have parasympathetic innervations
- Look for patterns

Downward spike of the EDR
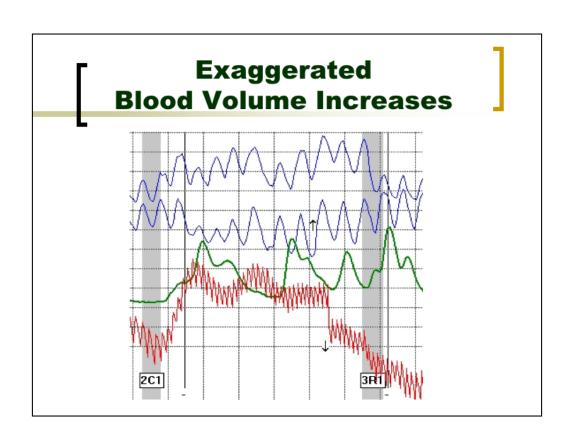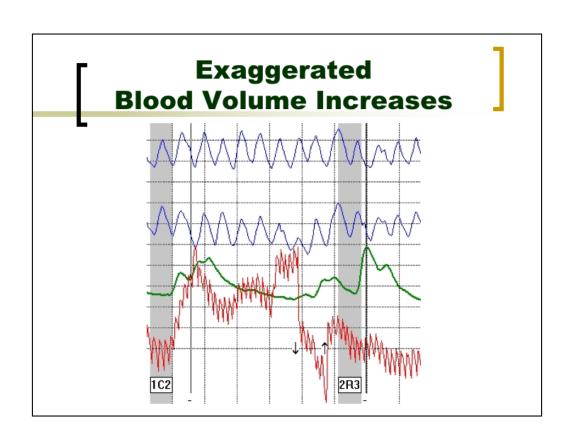
• **EDA MV can be deliberate**

• **Sometimes it is inadvertent – we have seen people concentrating on performing another CM such as mental math and inadvertently push down on the EDA plates then release pressure**

Exaggerated Blood Volume Increases

- Rapid rise & prolonged duration common at relevant questions for deceptive examinees
- Not common at comparison questions
- Virtually non-existent at irrelevant questions

• **Exaggerated blood volume increase is often overlooked**

• **Possibly because too often the cardio cuff is inappropriately placed or does not contain sufficient pressure**

• **If proper operations has taken place – right now 60 degrees for a period of 5 seconds may be indicative of a CM**

Exaggerated Blood Volume Increases

Exaggerated
Blood Volume Increases
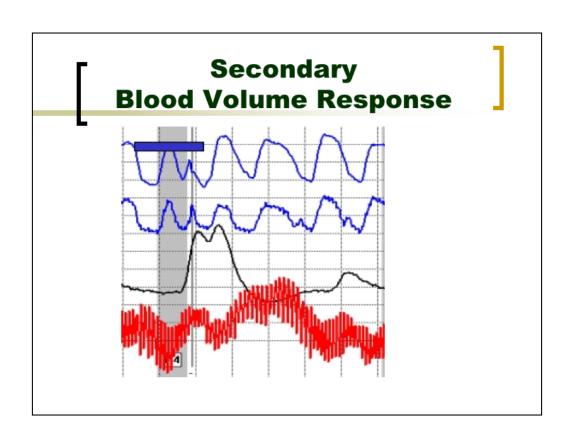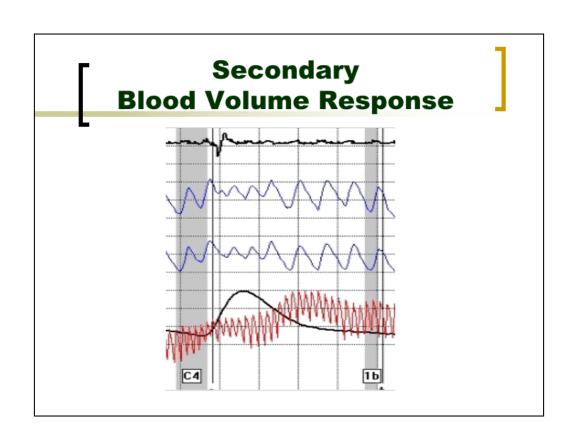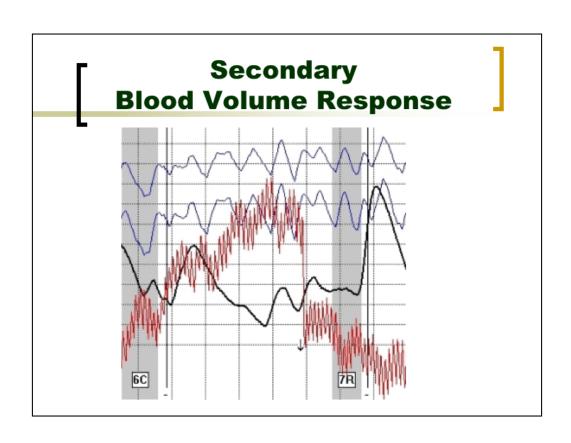
Secondary Blood Volume Response

- Sharp rise in cardio followed by a secondary rise
- When to question it

• **This response adds to the sharp rise**

• **Unusual – particularly at irrelevant and DLCQs**

    • **Should be unusual for a PLCQ**

Secondary
Blood Volume Response

Secondary Blood Volume Response

Secondary
Blood Volume Response
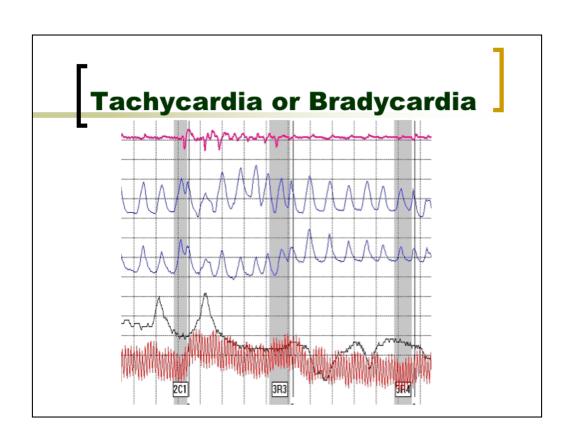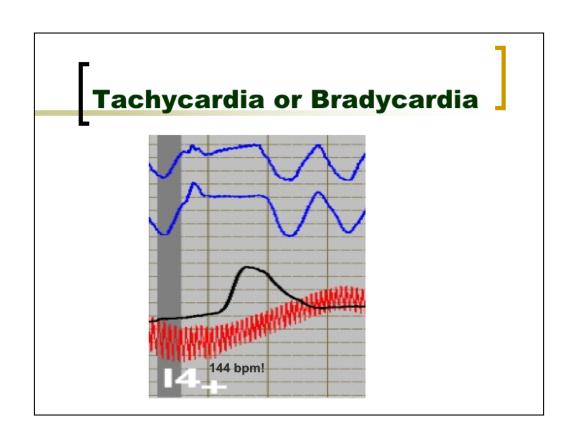
Tachycardia or Bradycardia

- Tonic pulse rates in excess of 100 BPM, or less than 60 BPM
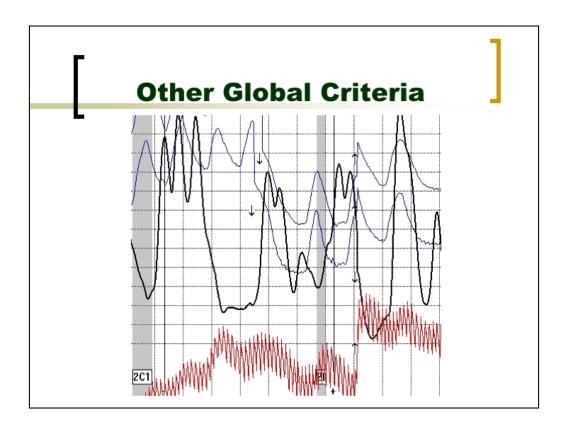
• **Most indicative of either a CM or a DI exam is pulse rate in excess of 100 BPM**

      • **If in excess of 100 BPM – look for other CM signatures**

• **If the pulse rate is really slow (under 50 BPM) consider drug use (muscle relaxants or barbiturates)**

Tachycardia or Bradycardia

Tachycardia or Bradycardia

144 bpm!
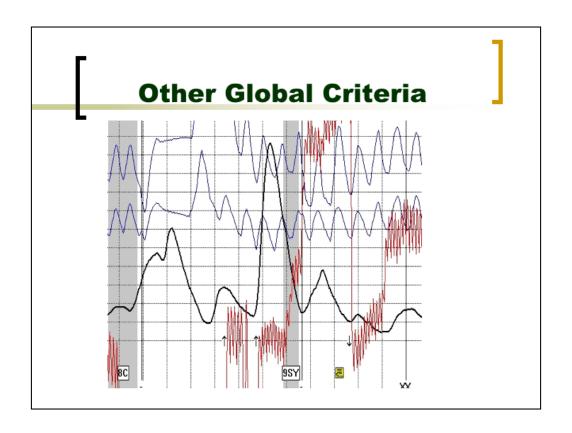
Other Global Criteria

- **Messy erratic test data**

- **Clean charts on first series – Messy on the second**

- **Clean ACQT – Messy during relevant issues**
  - **All signs of deception or CM activity**

Other Global Criteria
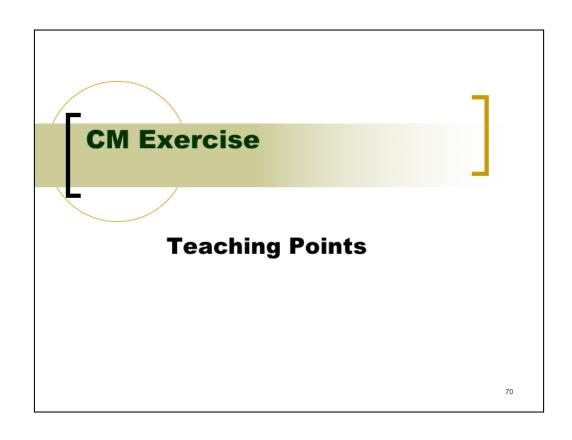
- **This slide**

    - **Examinee's physiology was good until the X**

Other Global Criteria

•This slide

• Examinee had good physiology until the first PLCQ was asked

CM Exercise

Teaching Points
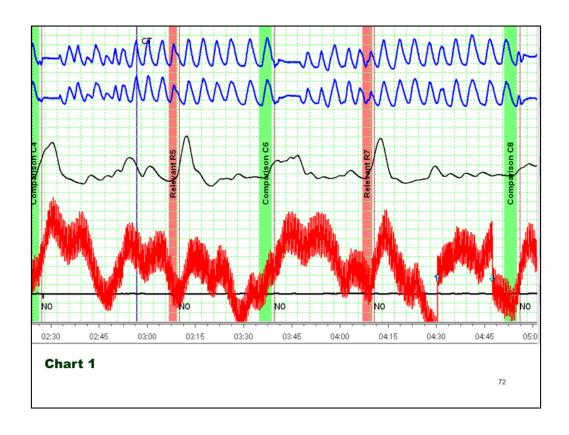
CM Exercise - Example 1

- U-Phase ZCT regarding cocaine use
- Researched "polygraph" on the Internet.
- Watched a polygraph exam on YouTube and redirected to a link with stories on how to perform CM – Link identified PLCQs
- Read Antipolygraph.org and decided to hold his breath at each PLC
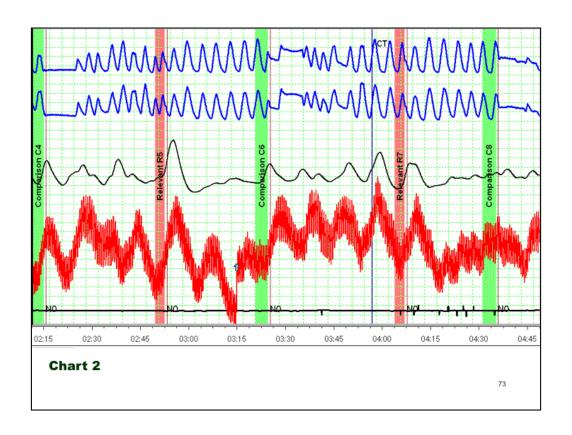
71

- **Key point** – This is typical of confirmed cases

  - **Examinee researches a number of sites**

  - **Antipolygraph.org gives the following instruction regarding Apnea or Blocking: Achieved by simply holding one's breath for four or five seconds after breathing out (anything much longer may make your polygrapher suspicious)**

  - **See if examinee followed the instruction**

Chart 1

72

• **Consider:**
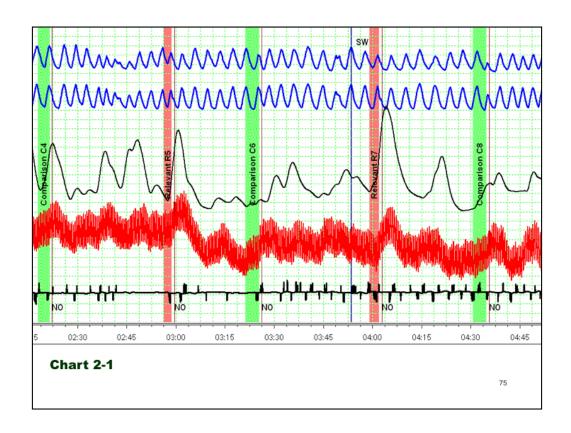
  • **What is causing the sharp CV rises?**

  • **Note: Every comparison question approximately 5 seconds of apnea**

Chart 2
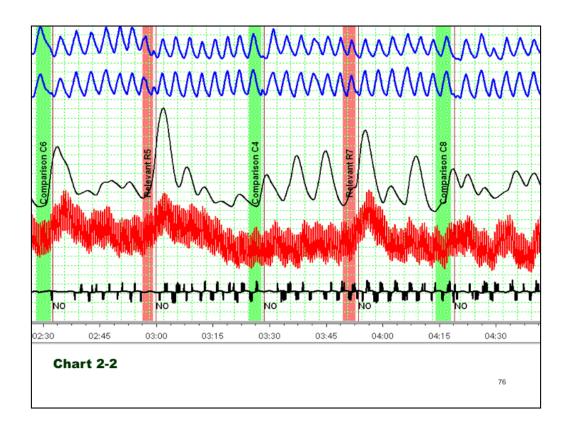
Example 1 - CM Post-test Interview

- Post-test confession to CM activity
- Examinee performed CM activity because he read that innocent people had to help themselves to "get through the test"
- He promised not to perform CM activity
- Examiner conducted another exam

74

• **Typical excuse given for CM activity**

• **A promise is made – should we be more conservative on the next test? Why? Why not?**

Chart 2-1

- **What is the difference between this series and the last?**

    - **Clean CV channel**

    - **No more false apnea**

    - **Appears to be DI**

Chart 2-2
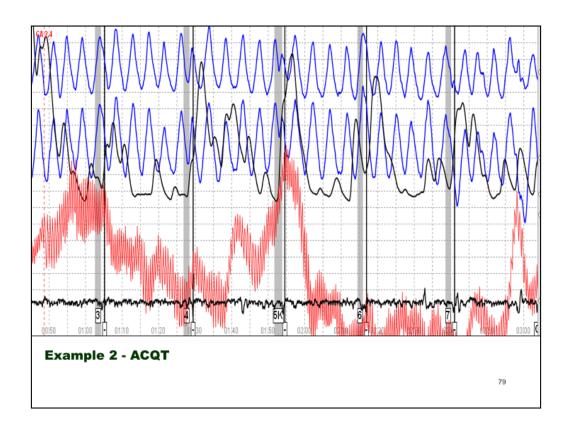
Example 1 – Continued Teaching Points
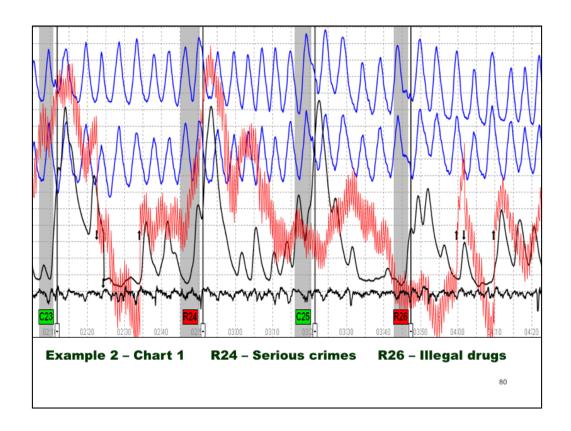
- **Examinee admitted to using cocaine and admitted to intentional actions to affect the outcome of the polygraph examination.**
- **Teaching points:**
  - **Examinee will tell you they only wanted to 'help themselves' through the process**
  - **Expect them to "throw you a bone"**
  - **CM activity often creates messy test data**

77

Example 2
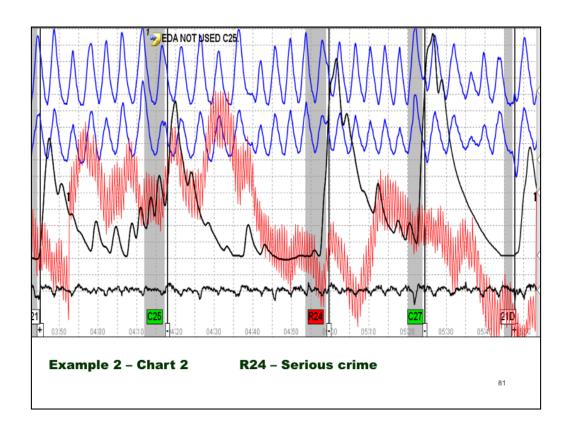
- Applicant screening using LEPET PLCQ format
- Pretest admissions to prescription drug abuse
- Post-test he admitted to:
  - Tightening his stomach muscles, buttocks
  - Clenching his teeth
  - At the "integrity/character" questions
- He said he was worried about a "false positive"
- He claimed he could not remember the anti-polygraph site that provided the CM information

78
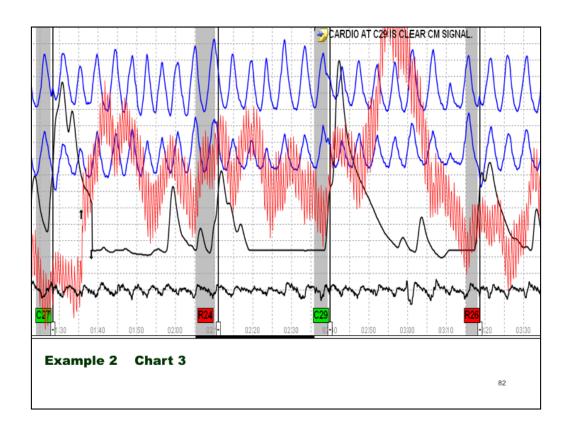
• He used the terms 'false positive'

• He is using a variety of CM

    • Stomach muscles
    • AS & clenching teeth

Example 2 - ACQT
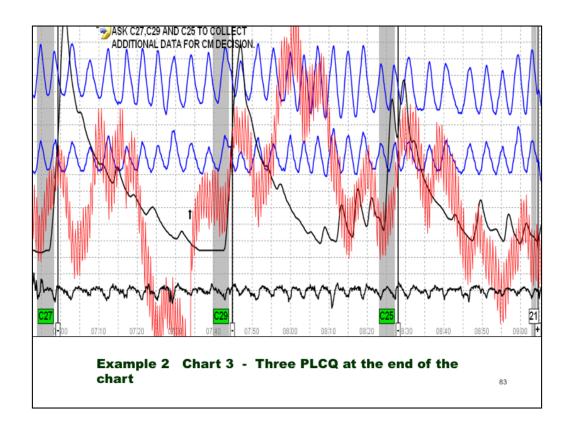
- **Why is the CV channel this sharp at the key?**

  - **Pulse rate is about 108 BPM**

  - Consider being more conservative once next chart starts

Example 2 – Chart 1   R24 – Serious crimes   R26 – Illegal drugs

80

Example 2 – Chart 2   R24 – Serious crime

81

CARDIO AT C29 IS CLEAR CM SIGNAL.

Example 2   Chart 3

82

• **Double CV at C29**

Example 2   Chart 3 - Three PLCQ at the end of the chart

83
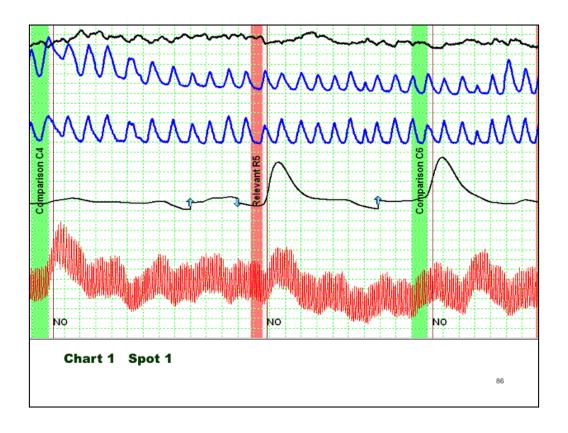
• This examiner chose to ask 3 PLCQ at the end of the chart to make a final CM determination

• Note that the PN channels are fairly stable
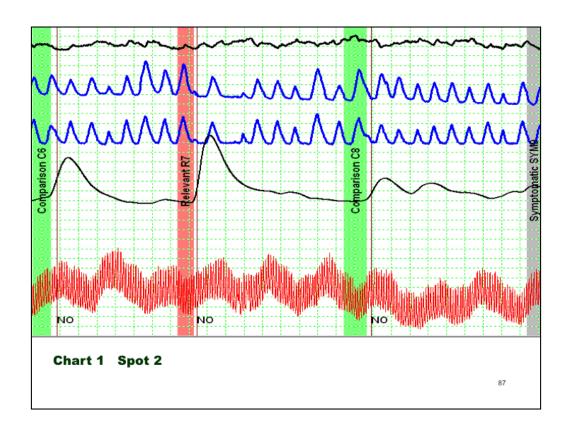
Example 2 - Teaching Points
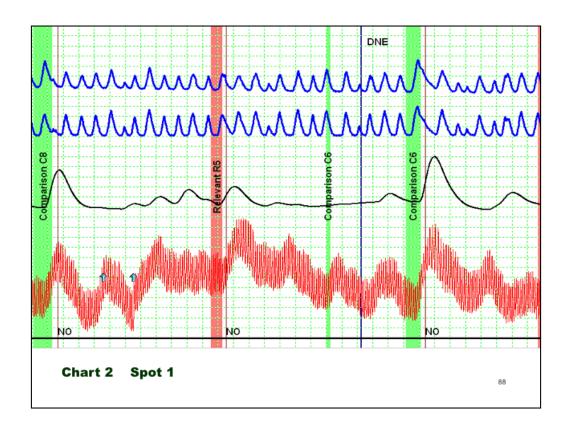
- **Tightening the stomach muscles and buttocks should have caused significant responses in the seat sensor (Cushion appeared to be working)**
  - Possibility: Padding in his under clothes to mask MV
- **Clenched teeth can cause dramatic CV changes, but often revealed in PN channels**
- **Consider the possibility that examinee is lying about what CM he is performing**
- **Pretest admission to prescription drug abuse – Global evaluation: Probably hiding serious crime**

84

Example 3
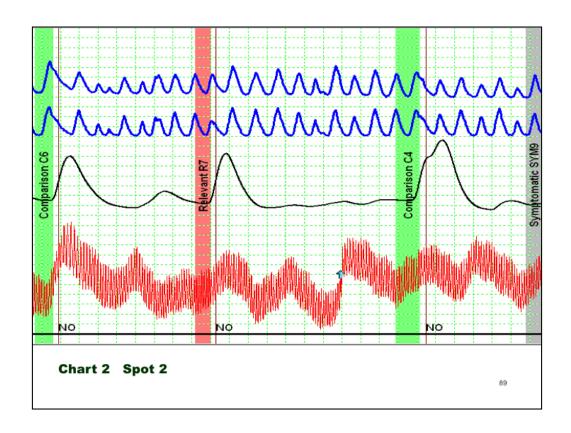
- **Researched polygraph on the Internet**
- **Concluded from research 4 ways to defeat his polygraph examination**
  - ○ Bite tongue
  - ○ Bite cheek
  - ○ Anal sphincter
  - ○ Tack in shoe
- **He chose biting cheek – less painful**
- **Did CM because deceptive to the issue**

85
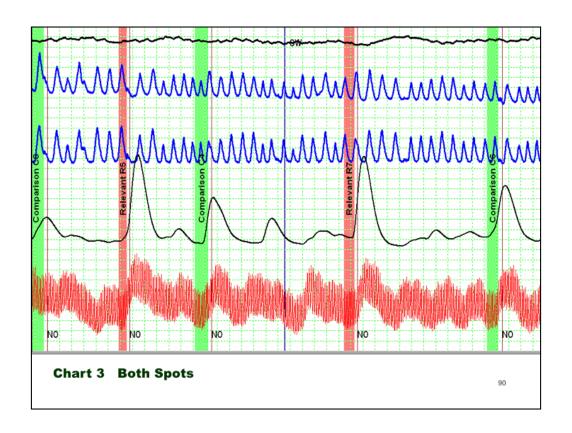
• Inserting something into a child's anus…

• U-Phase ZCT

• C4 – Prior to year 2009, did you ever perform an unnatural sex act?

• R5 - Did you insert anything into Angie's anus?

• C6 – Prior to your 21st birthday, did you ever masturbate?

• R7 - Did you insert anything into Angie's anus while in that room?

• C8 – Before 2009, did you ever do something sexual for which you are ashamed ?

• Isn't it interesting that someone who would insert objects into a child's anus would be concerned about a painful CM

Comparison C4

Relevant R5

Comparison C6

NO

NO

NO

Chart 1   Spot 1

86

Comparison C6
Relevant R7
Comparison C8
Symptomatic SYM

NO   NO   NO

Chart 1   Spot 2

87

Chart 2   Spot 1

88

Comparison C6

Relevant R7

Comparison C4

Symptomatic SYM9

NO NO NO

Chart 2   Spot 2

89

Chart 3   Both Spots
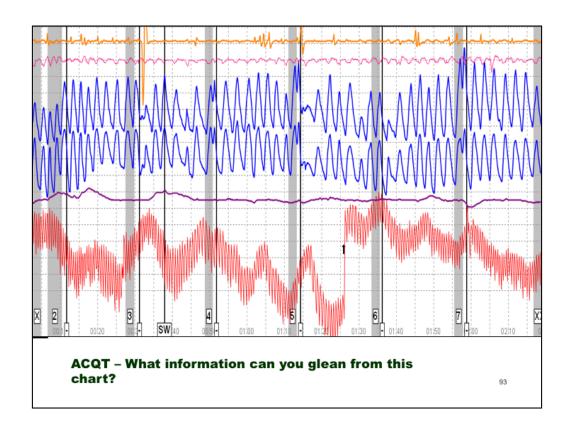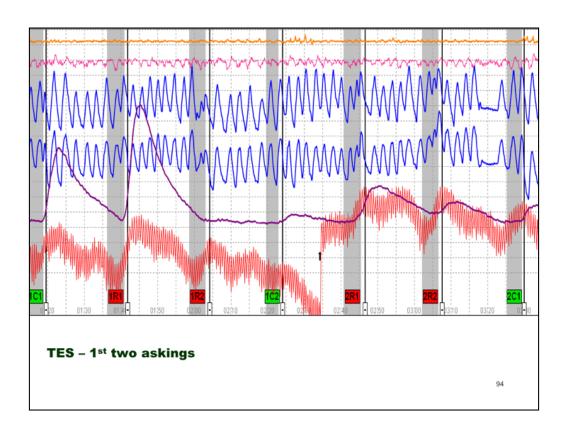
Example 3 - Teaching Points
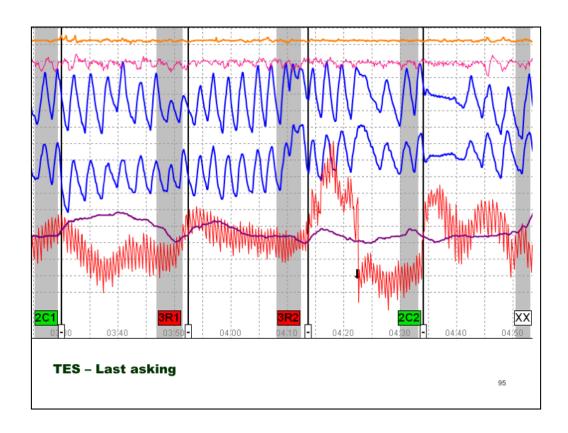
- **Did you see anything to indicate CM activity?**
    - Not much
    - Occasional dragging of exhalation in PN channel
    - Occasional sharp rise in CV channel – The sharp rise consistent on those occasions with the dragging exhalation

- **Examinee still responding to the relevant questions, but the examinee wins if the results are NO**

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Example 4
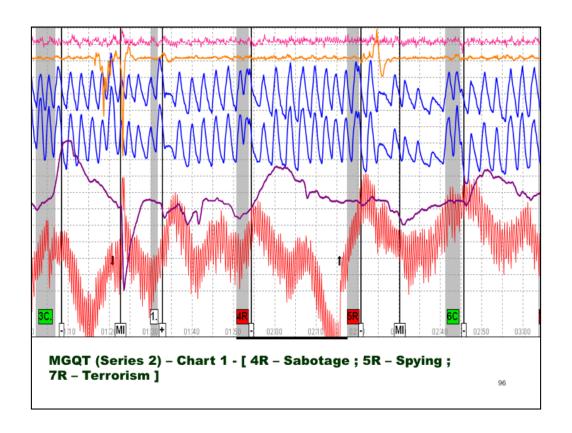
- **Examinee is a contractor**
- **He admitted to altering his physiology to influence the outcome of the test**
- **He admitted to the following CM activity:**
  - **Excessive swallowing**
  - **Deliberately blinking his eyes**
  - **Crossing his eyes and rolling them up**
- **TES followed by two MGQT's using PLCQ**

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ACQT – What information can you glean from this chart?

93
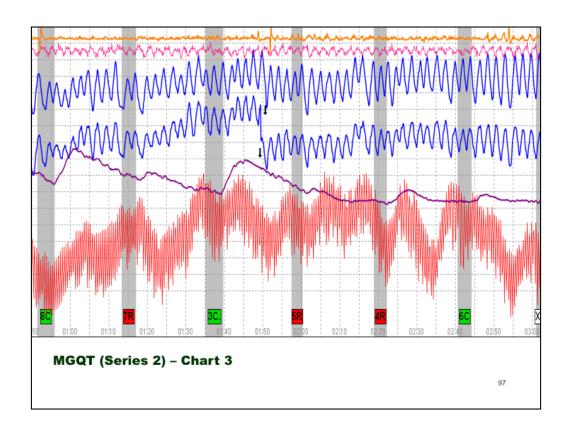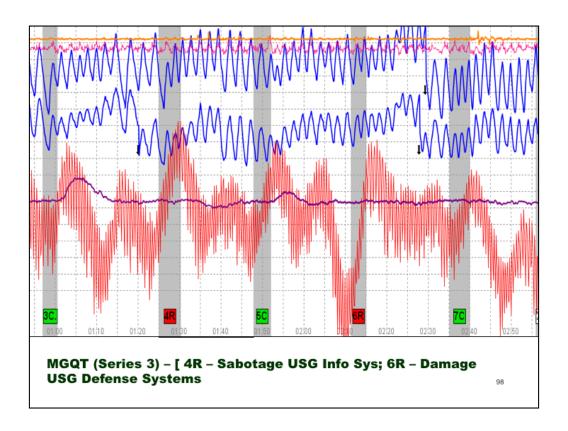
• **Examinee attacked the key**

TES – 1st two askings

94

TES – Last asking

95

MGQT (Series 2) – Chart 1 - [4R – Sabotage ; 5R – Spying ; 7R – Terrorism]

96

MGQT (Series 2) – Chart 3

97

MGQT (Series 3) – [4R – Sabotage USG Info Sys; 6R – Damage USG Defense Systems

98

MGQT (Series 3) – Chart 2

99
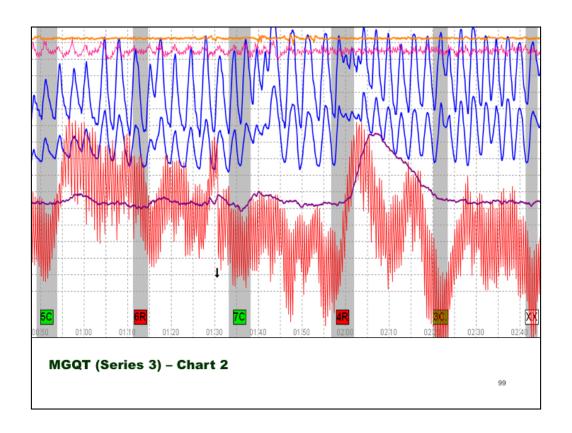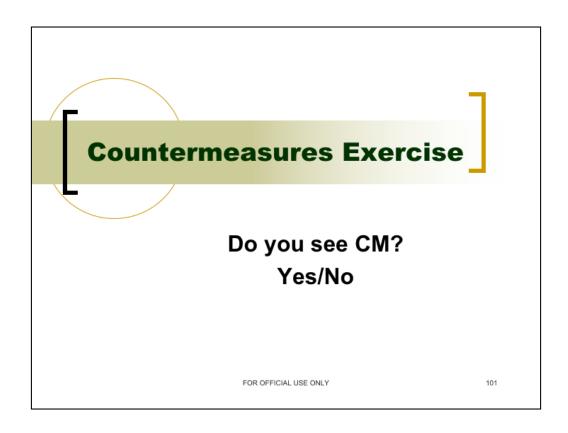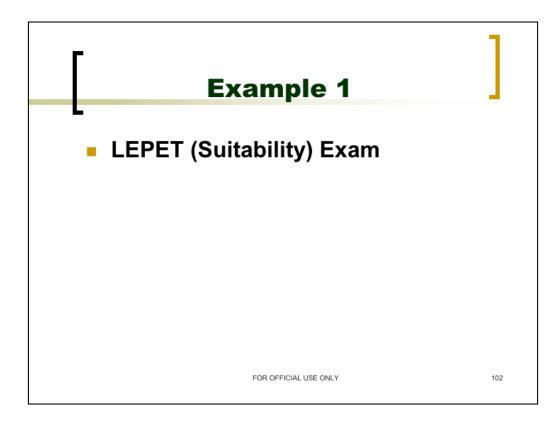
Example 4 - Teaching Points
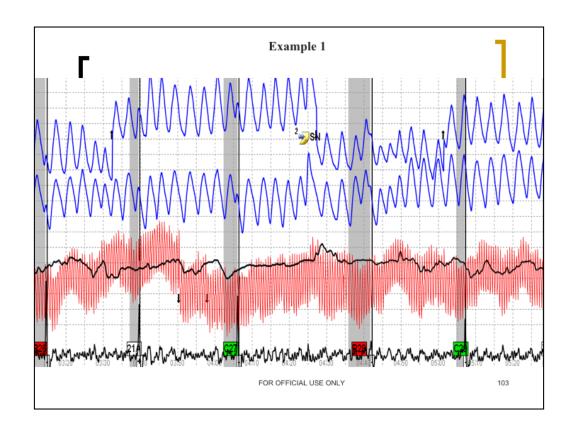
- **Sloppy and erratic test data should tell us something**
  - **Stop running charts**
  - **Stop giving BI/MI instructions**
  - **Examinee is either DI, or performing CM, or both DI and performing CM**
- **3 Series with 9 charts conducted before the examiner decided to talk to the examinee**
- **Kudos to examiner for stop trying to "get examinee through the test"**

Countermeasures Exercise

Do you see CM?
Yes/No

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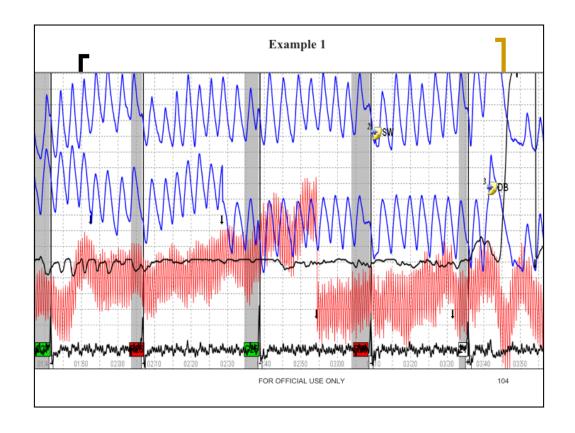
• The purpose of viewing these samples is to provide an opportunity to see test data.

• Some of the test data is messy – Some may contain CM – Some may not – look at the data and make your decision
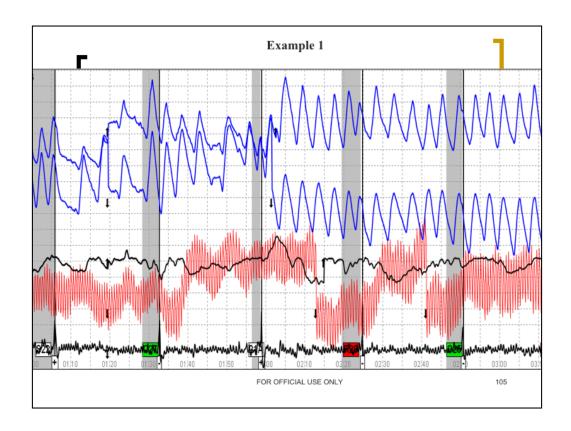
• **Why is the test data (particularly the PN Channels) messy?**

• **Are the Pneumograph tubes attached correctly?**

   • **Upper across the chest**
   • **Lower across the diaphragm**

• **Are the Pneumograph tubes too tight?**

• **Are the Pneumograph tubes rolling?**

• **Is there a loose or broken wire along the EDA shielded cable?**

• **If finger plates are being used – are they loose causing a break in contact between the plate and the fingers?**

   • **EDA sensitivity is 0.8 on 1st chart; 1.7 on 2nd; & 2.5 on 3rd**

Example 1

Example 1
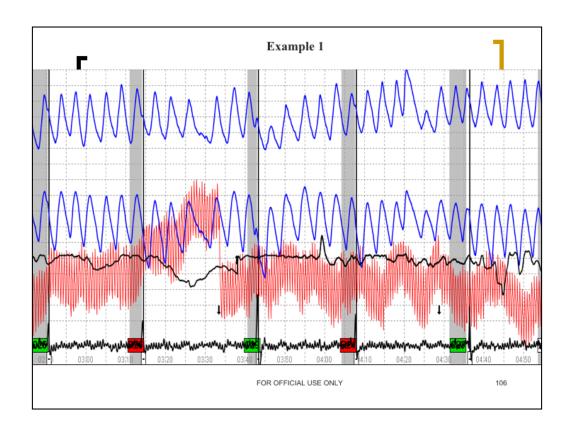
• **PN channels are not stable.**

• **R28 – PN channels atypical – rise off the baseline forming a new baseline**

• **EDA channel chatter with random responses**

• **CV channel – Pulse rate 96 BPM with strong responses at the relevant questions.**

• **At this point – no decision can be made regarding CM activity.**

Example 1

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• **PN channels are not stable**

• **C27 – Upper PN rising off the baseline. Lower PN re-centered by examiner. It appears that it would have been a diverging PN.**

• **C27 - EDA channel at C27 almost looks like a broken wire. Possibly movements.**

• **C27 - CV channel secondary blood volume increase too good to be true**

• **C25 – PN channels baseline drop + CV channel secondary blood volume increase**

• **IRQ – DB and apnea**

Example 1

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• **IRQ – PN channels - False apnea + baseline changes**

• **C27 – Appears to be trying to recover from manipulated irrelevant question.**

• **21A – Examiner moved both PN in opposite directions**

•**R28 – Strong CV responses**

• **Lower PN channel began wandering down from 21A through C25**

Example 1

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- **C29 – PN channels changing baseline + MV in sensor pad at the answer**

- **C23 – Lower PN channel dropped off baseline + EDA drop – both indicate MV**

- **R26 – Strong CV responses**

- **It is clear that examinee is manipulating test data.**

Exercise 1
What is your Decision?

- **The rest of the story:**
  - Examinee admitted mental CM
  - Dissociating himself to avoid thinking about the questions
  - To avoid admitting to using Crystal Meth over 10,000 times
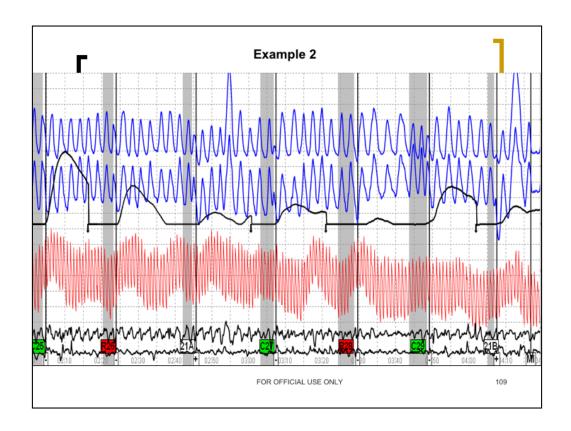
107
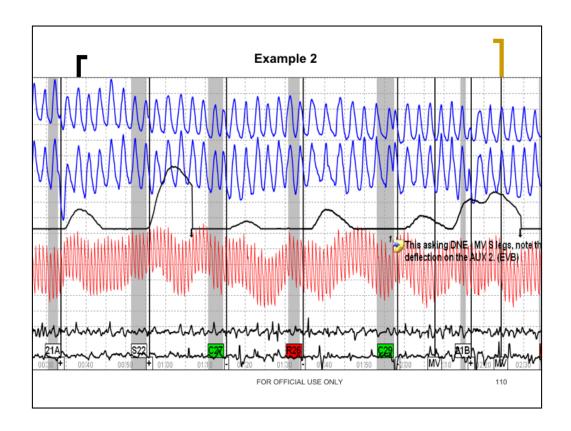
R26 is the drug question

Example 2

- **LEPET (Suitability) Exam**

Example 2
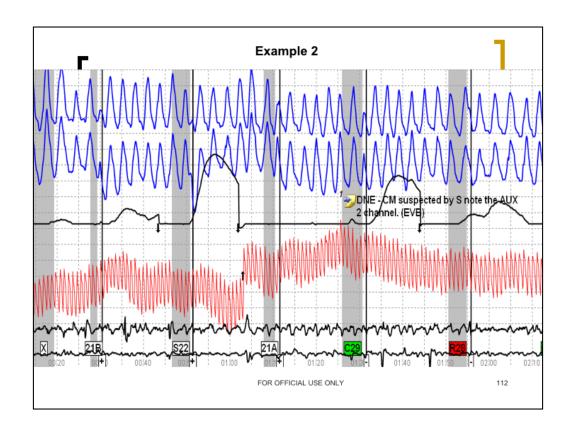
• **PN channels are not stable**

• **C25 – PN channel drops off the baseline then rises.**

• **21A – PN channel is clearly atypical – both channels drop a full baseline suggesting movement.**

• **C27 – Lower PN channel about 12 seconds after the answer rises with a corresponding rise in the CV channel**

• **C29 – 3 breaths in a 5 second question window**

• **R28 – Significant change in rate at the PN channels**

• **21B – PN channels drop and DBs**

Example 2

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110
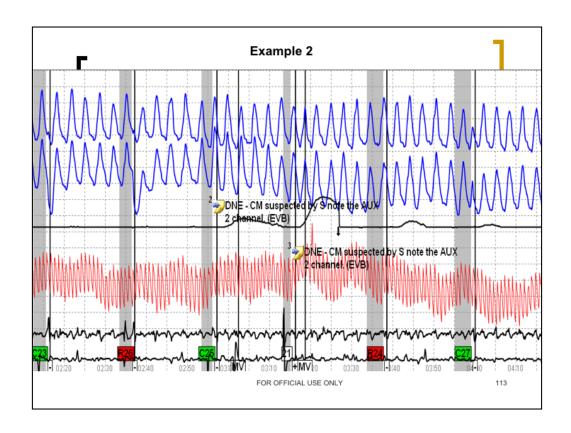
• **21A – Converging PN channels + lower PN channel exaggerated exhalation.**

• **C29 – MV in sensor cushion + crown in PN channels**

• **R26 – PN channels rate change**

Example 2
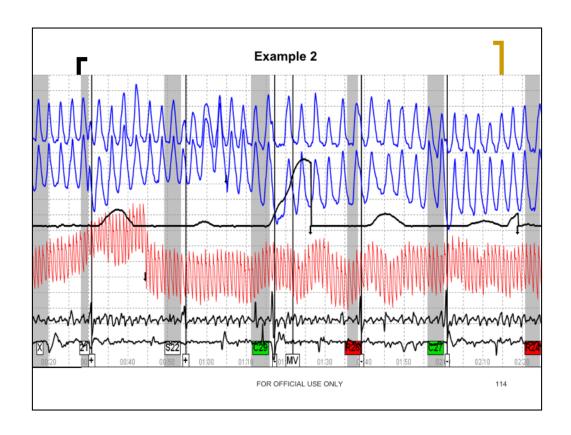
• C23 – Lower PN channel – Exaggerated exhalation pulling lower PN off the baseline

• 21 – Lower PN channel rising off the baseline

• C25 – Note shows a SW, but I see several seconds of apnea.

Example 2

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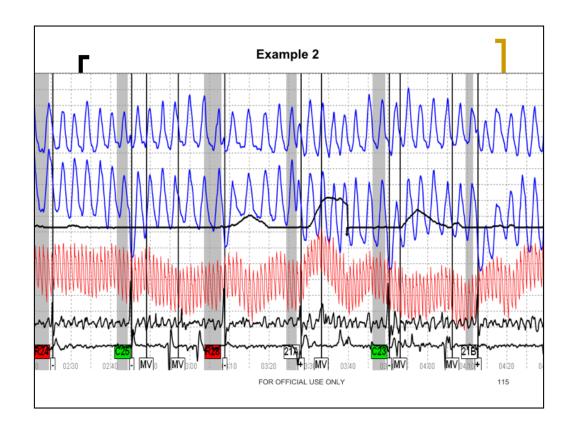
• **21B – PN channels drop in baseline**

• **21A – Same**

• **C29 – Examiner noted MV in sensor cushion.**

Example 2

- **PN channels are not stable**

- **C23 & C25 MV in sensor cushion**

- **21 – MV in sensor cushion**

Example 2

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• **21 – Lower PN channel exaggerated exhalation pulling off baseline**

• **C29 – False apnea + MV in sensor cushion**

• **C27 – Lower PN channel drops off the baseline**

Example 2

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115

• C25 – MV in sensor cushion + Lower PN channel dropped off baseline

• 21A – MV in sensor cushion + PN channels dropped off baseline

• 21B – Lower PN channel – exaggerated exhalation plus both PN channels drop off the baseline.

Example 2
What is your Decision?

- Identified IRQ as "setup questions"
- Turned them into lie questions – thought hard at each – thinking of specific lies
- Sang Christmas songs in head at the IRQ
- Thinking so hard at IRQ he realized one foot off CM pad
- Hiding steroid use
- Numerically, NDI
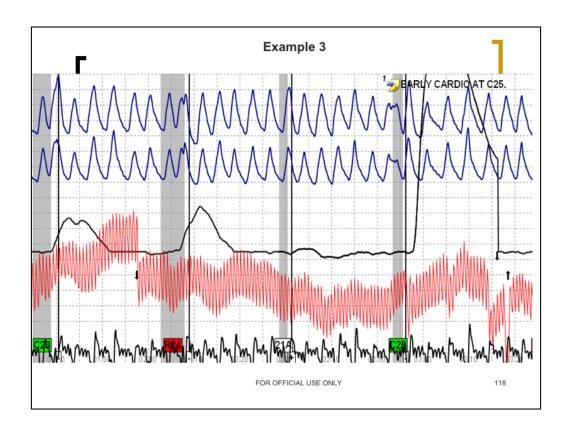
116
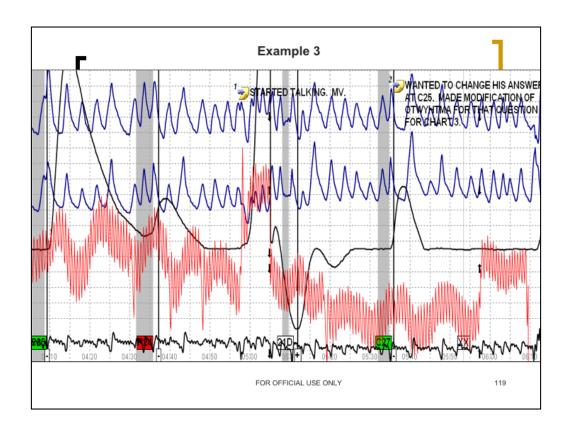
• **Examinee was also manipulating the comparison questions**

Example 3

- LEPET (Suitability) Exam

- Evaluate R24 spot only

Example 3

EARLY CARDIO AT C25.

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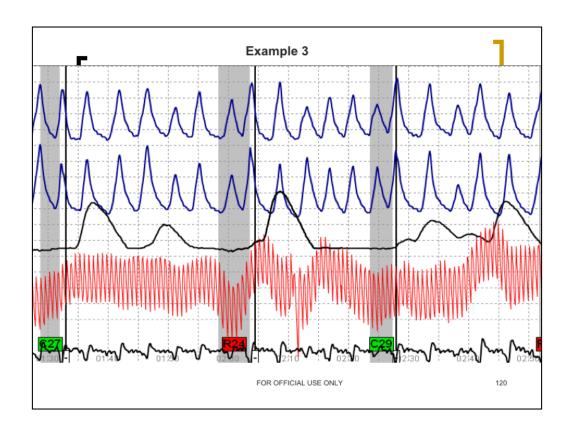
• **C23 & C25 – Apnea begins just before the question is asked. Examinee is anticipating the questions (suggesting he knows what question (relevant or comparison) is coming.**

> • **Early apnea causes an early rise in the CV channel**

> • **Secondary blood volume increase at both PN channels**

Example 3

• **This chart is a mess between moving and talking**

• **C25 – PN channels – examinee took a breath & answering while breathing in**

• **C27 – Apnea after the answer**

• **R24 - PVCs only at the relevant question**

Example 3

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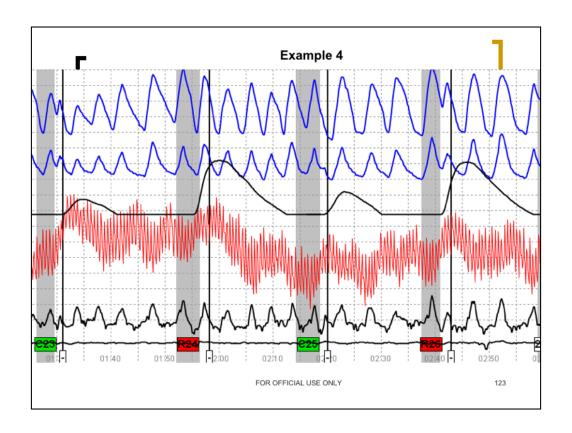
• **Clean chart with a secondary rise in blood volume at C29.**

• **R24 – Once again we have a PVC only at the relevant question**

Example 3
What is your Decision?
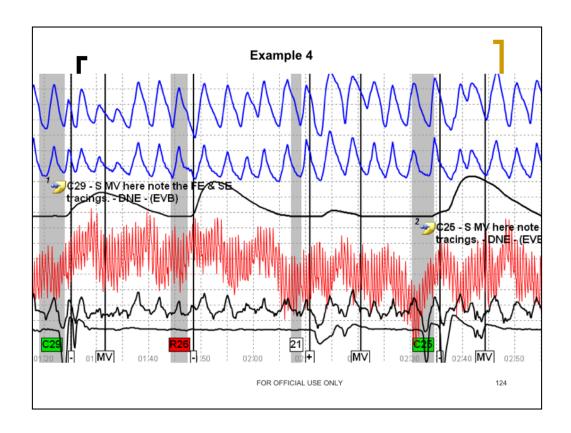
- Examinee tightening legs specifically at C25 and C27

- Read information about CM & discussed polygraph CM in a criminal justice class

- Hiding serious crime issue
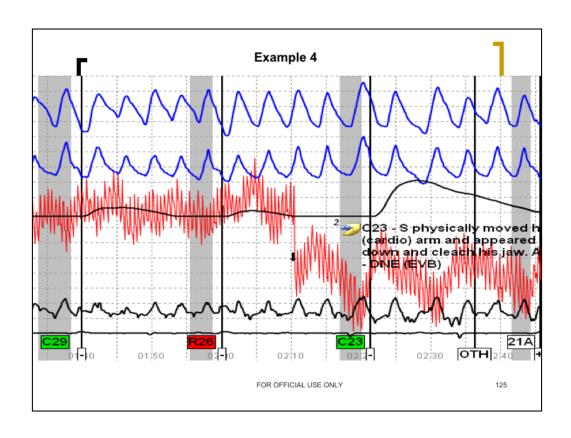
Example 4

- **LEPET (Suitability) Exam**

Example 4

- **Controlled breathing**

- **C23 – sharp CV tracing**

- **Strong relevant responses in both EDA & CV channels**

- **Not much in the way of CM signatures at this point**

Example 4

• C29 & C25 – MV in sensor cushions + both PN channels have atypical breathing after the answer + C25 CV channel too good to be true with its sharp rise.

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Example 4

C23 - S physically moved h
(cardio) arm and appeared
down and cleach his jaw. A
- DNE (EVB)

C29   R26   C23   21A

01:40   01:50   02:00   02:10   02:20   02:30   OTH 2:40

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- **Examiner observed examinee move arm and clench jaw at C23**

- **Now we have frequency and specificity**
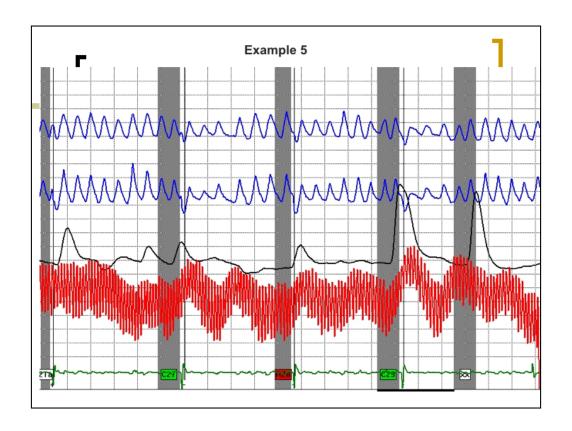
Example 4
What is your Decision?

- Mental thoughts (happy place); Anal sphincter; Running tongue across teeth; Controlled breathing.

- Admitted to defeating two polygraph exams – one with a local Sheriff's office & the second with a Federal agency. He was scheduled to start work for the Federal agency in a week.

- Admitted to hiding extensive drug involvement

126
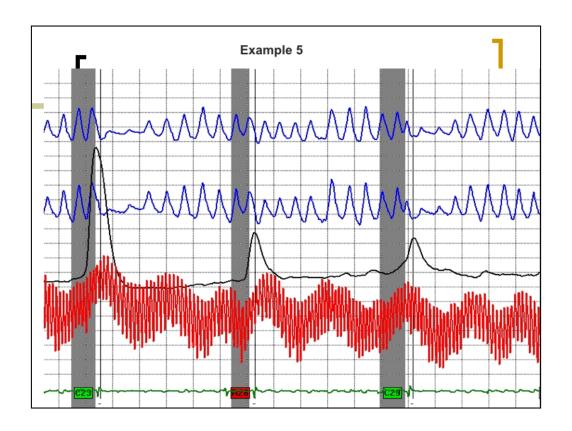
• Beat a DEA exam. Scheduled to go to work for them.

• This was a CBP exam – they passed to DEA regarding subject's drug use and defeat of their exam using CM.
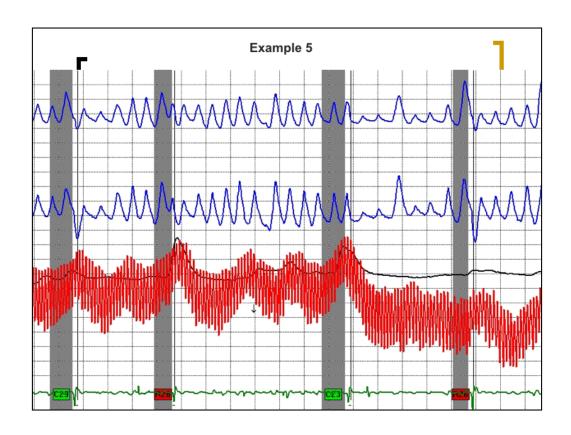
Example 5

- **LEPET (Suitability)**

Example 5

Example 5

• C27 & C29 – Note the rate change and I/E change that goes on for 15 seconds + the CV channels for both comparison questions have very sharp reactions.

Example 5

Example 5

• **C23 & C29 – Cookie cutter responses in both PN channels – frequency and specificity + strong EDA at C23 & large CV channel responses**

Example 5

Example 5
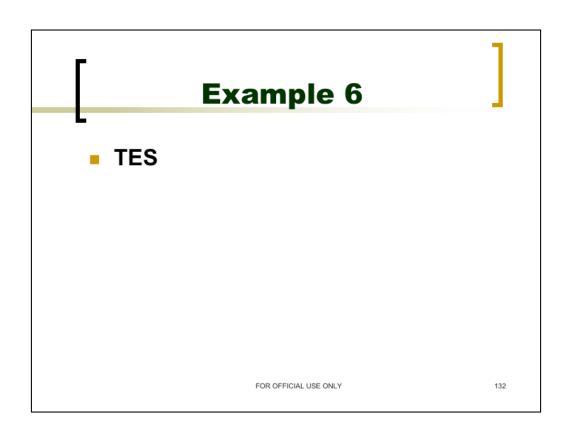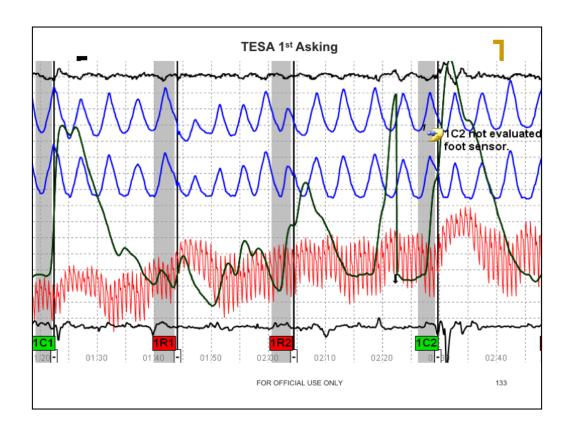
• **C29 & C23 – Cookie cutter (lacking variability) responses in PN channels + sharp CV at C23.**

Example 5
What is your Decision?
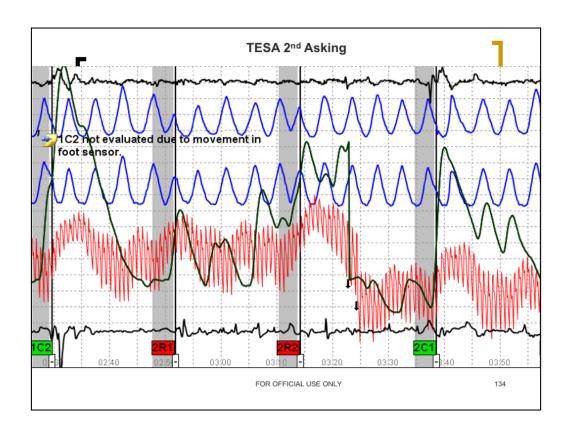
- Examinee performing mental math and controlling his breathing
- Learned about the activity on the Internet
- Hiding drug activity

Example 6

- TES

TESA 1st Asking

1C2 not evaluated foot sensor.

1C1 1R1 1R2 1C2

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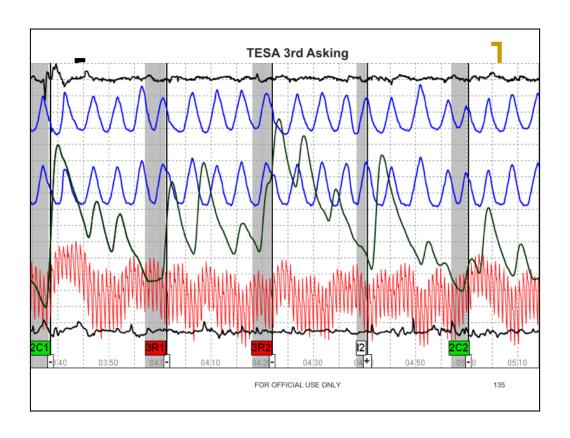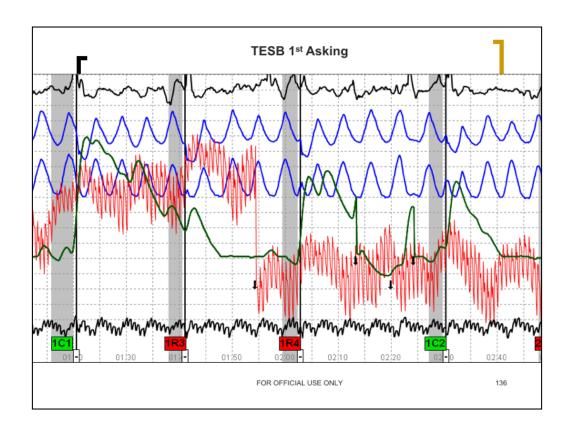
• **2-sensors are being used (one for the seat and one for the feet)**

•**1C1 – slight movement in both pads after the answer**

• **1C2 – larger responses in both pads + sharp CV rise which is unusual for a DLCQ**
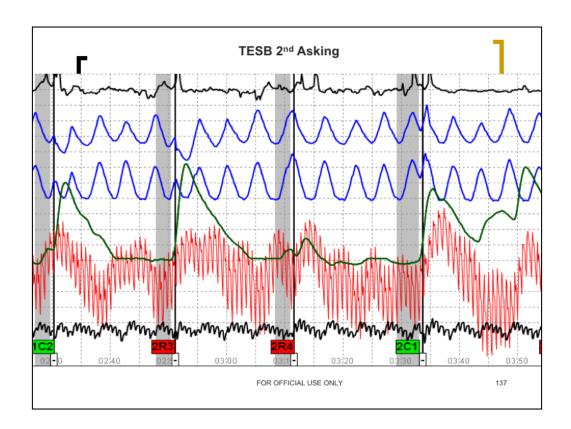
- **1C2 – discussed last chart**

- **2C1 – MV both pads**

- **Large EDA responses and CV responses both DLCQ**

TESA 3rd Asking

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- **2C1 – already discussed**

- **Labile EDA**
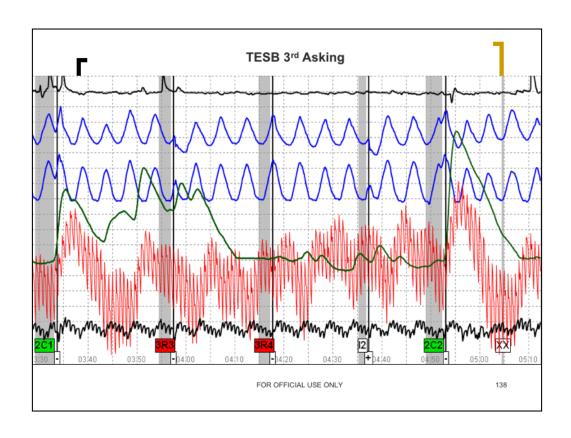
•**TESB – 1st asking**

•**Sensor pad movement at all of the questions**

•**1C1 – very strong CV channel starting early**

• **1C2 – Sharp CV**

• **Messy CV channel with strong responses at the relevant questions particularly R3.**

TESB – 2nd asking

• DLCQ – MV in sensor pad

    • 1C2 – Temporary rise off baseline in upper PN channel
    • 2C1 – Very sharp CV rising almost 5 chart divisions

TESB 3rd Asking

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• **DLCQ – the CV channels are cookie-cutter (lack variability)**

• **MV in sensor pad for both DLCQ**

Example 6
What is your Decision?
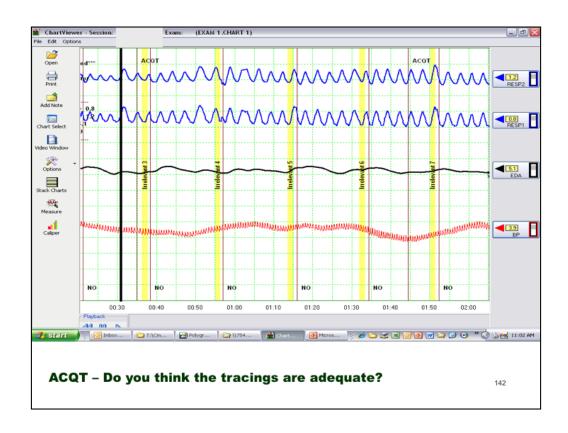
- Researched polygraph on Internet prior to his last polygraph 5 years ago
- Received an email from a friend telling him not to take DB but to breath normally
- Clinched buttocks and curled toes at the DLCQ
- **Admitted to accidently taking classified (TS) document home & telling his wife about information he read in a classified database**

Exercise
Importance of proper tracings
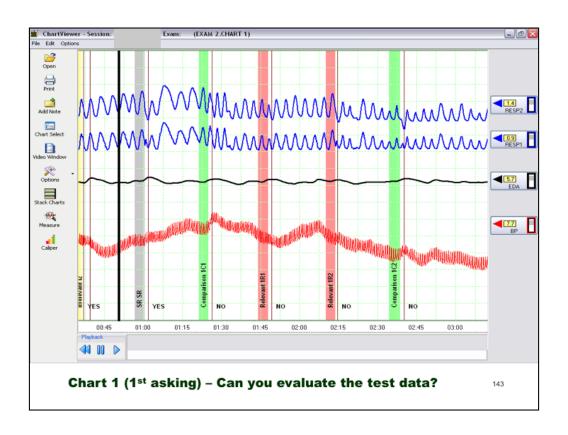
TES Exam Background

- **Examinee's First Polygraph**

- **Assignment to Another Agency**

- **Counterintelligence Scope Only**

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ACQT – Do you think the tracings are adequate?

Chart 1 (1ˢᵗ asking) – Can you evaluate the test data?

Chart 1 (2nd asking) – Continue with the evaluation?

Chart 1 (3rd asking) – What is your decision? Do you see CM?

OPERATIONS
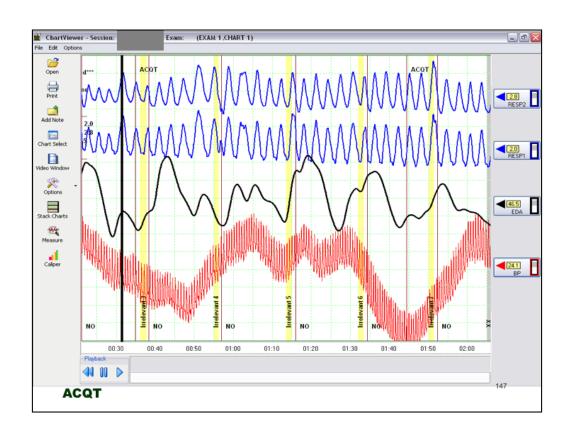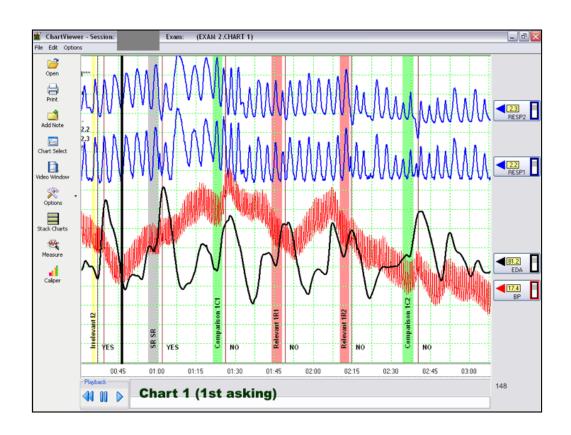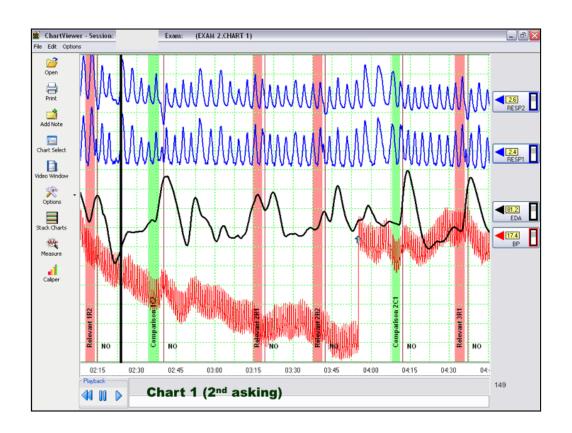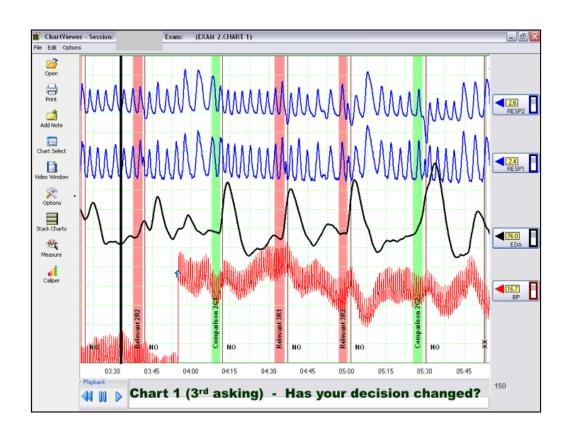
Let's look at the same exam with different sensitivity settings

ACQT

Chart 1 (1st asking)

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Operations
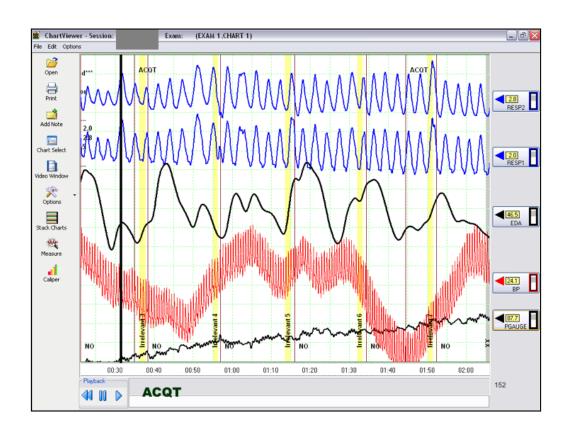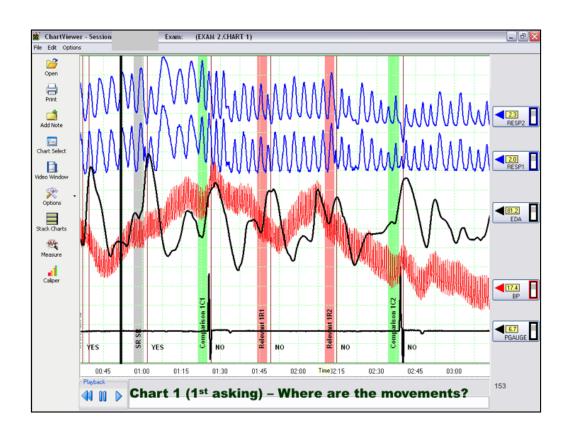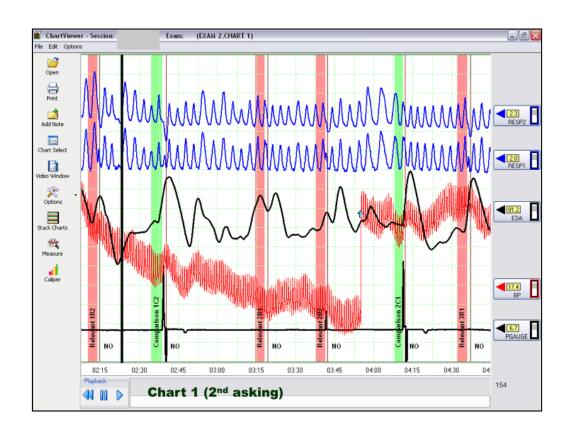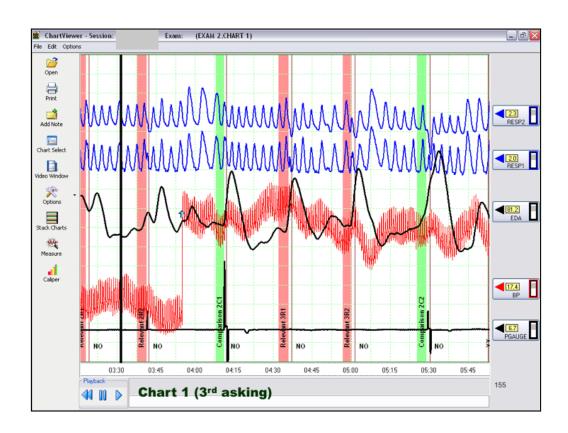
Let's look at the same charts again with the sensor pad turned on

Chart 1 (2nd asking)

Exercise
What did you see?

- **One clean movement at each comparison question**
- **EDA is labile**
- **After ACQT – breathing becomes erratic**

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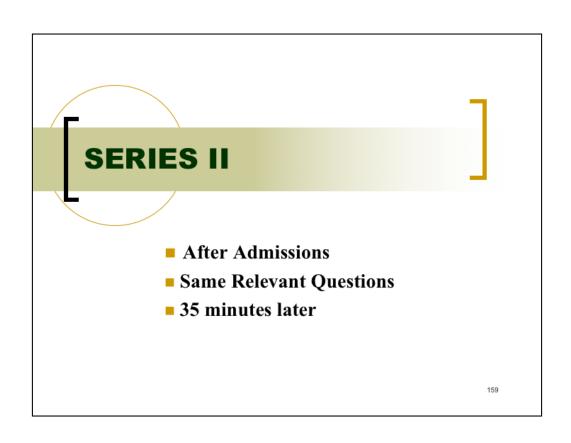
Exercise
Post-test Interview
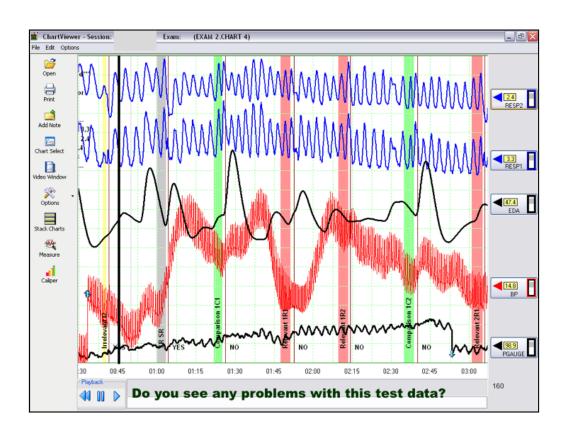
- **Examinee claimed the following:**
  - **Claimed to flex his right leg (toe) at all DLCQ**
  - **He flexed right leg because CV cuff placed on left calf**
  - **Learned the activity by watching TV ("The Profit" and "Doctor Phil Show".**
  - **Discussed CM with AIT students at Goodfellow AFB, TX**
  - **A SSgt claimed to use technique to pass his poly**
  - **Denied on-line research**
  - **Said he was just trying to help himself**
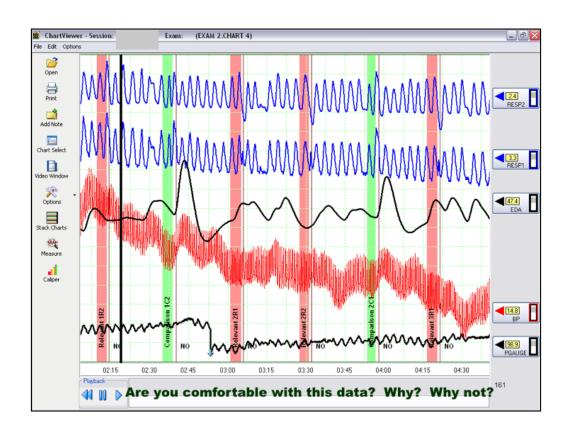
157
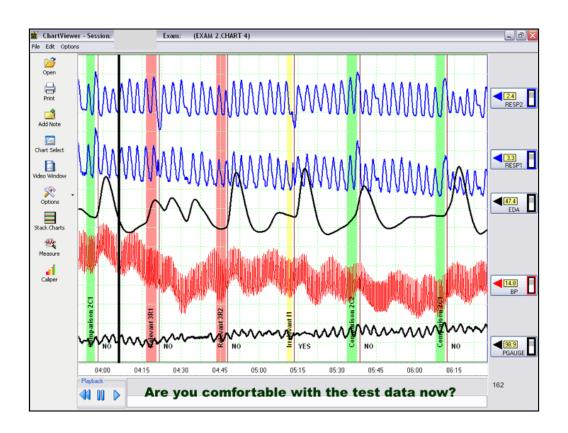
Exercise
Questions to consider

- **Do you believe his story?**
- **He has been selected to fill an NSA billet**
- **Do you think he attempted to hide relevant responses?**

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SERIES II

- **After Admissions**
- **Same Relevant Questions**
- **35 minutes later**

159
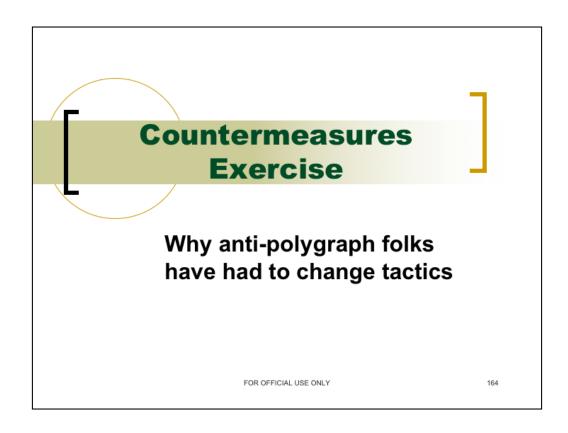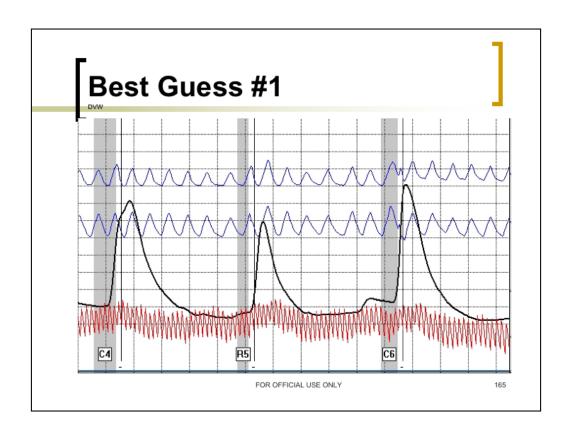
Exercise
Post-mortem

- **The last exam was called No Opinion**
  - **Do you think that was the right decision?**
  - **What approach would you have taken?**

- **Examinee was scheduled for further testing**
  - **If you were required to test this individual again, what approach would you take?**

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Countermeasures Exercise

Why anti-polygraph folks
have had to change tactics

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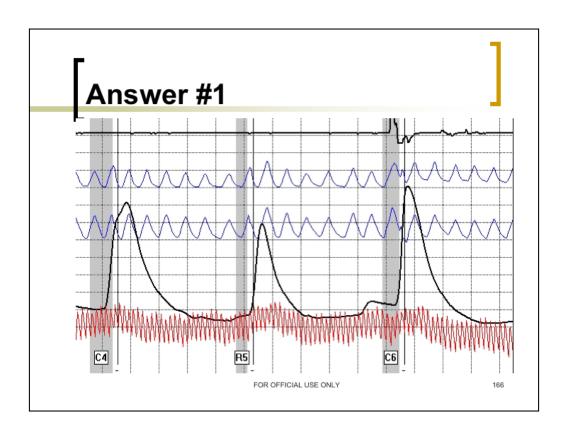
Countermeasures Exercise
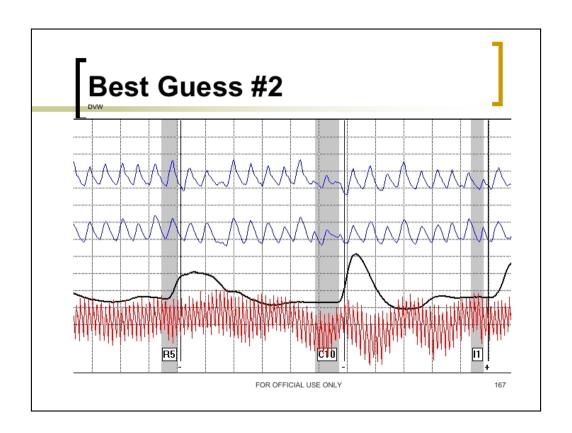
• **When the NCCA developed the sensor cushion all of the polygraph program managers were given an opportunity to see if they could defeat the sensor.**

• **The next set of slides are their attempts.**

• **The key here is that these are all senior examiners attempting to be defeat the sensor so the physiology is very subtle + there is no anxiety.**
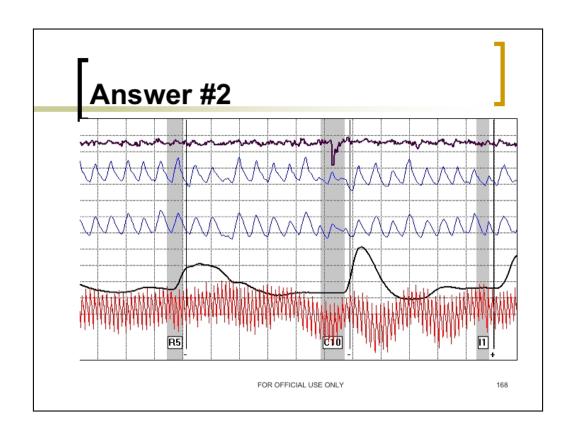
Best Guess #1 – Do you see a CM?

Answer #1
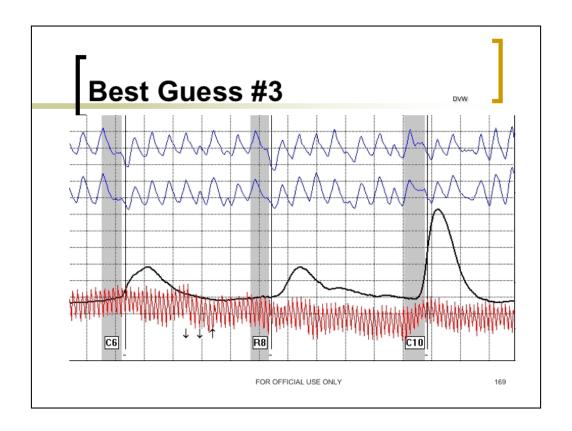
•In this case the movement was caused by the anal sphincter.
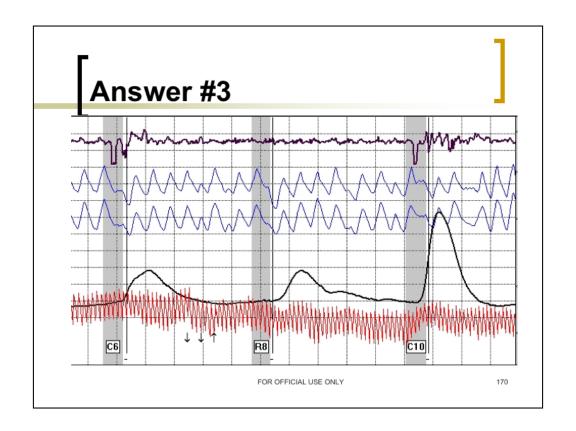
Best Guess #2 – What do you see?

Answer #2

R5　　　　　C10　　　　　I1

168
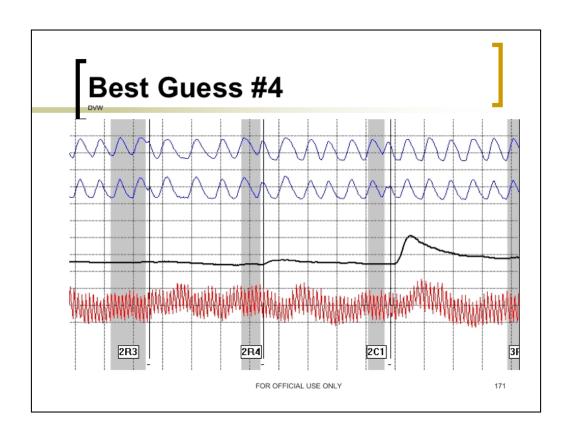
Answer #2 – AS at C10
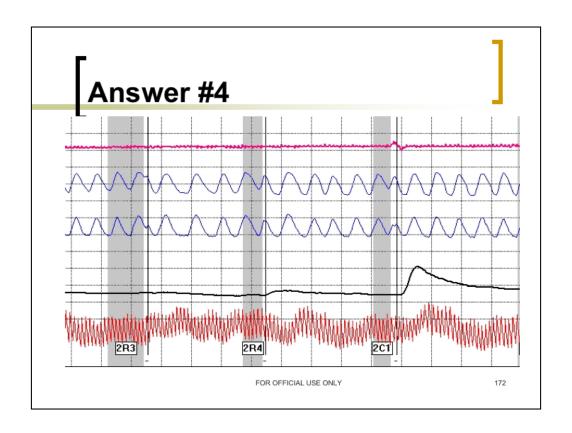
Best Guess #3 – What do you see?

Answer #3

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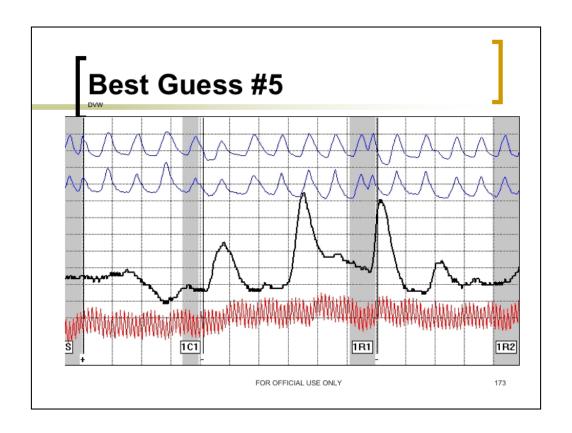
Answer #3 – Anal Sphincter
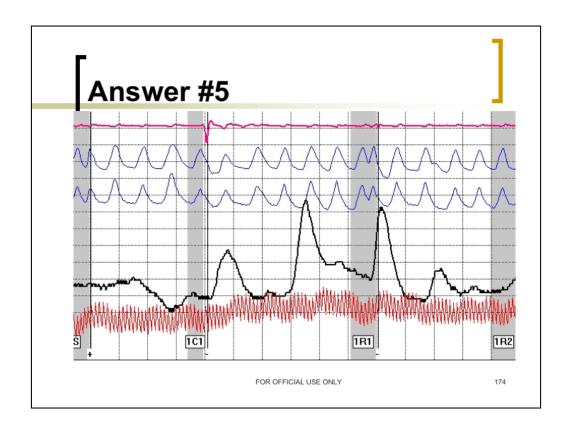
Best Guess #4 – What do you see?

Answer #4

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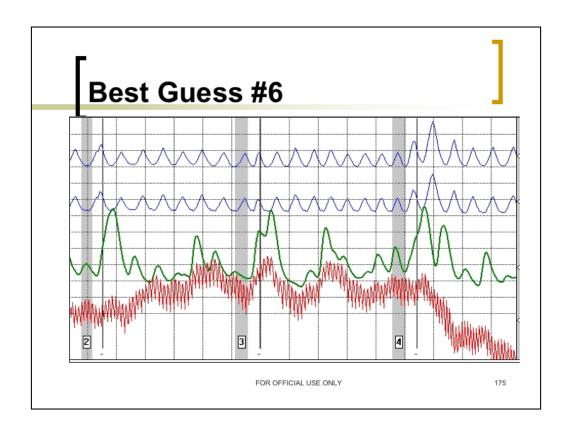
Answer #4 – Toe Press
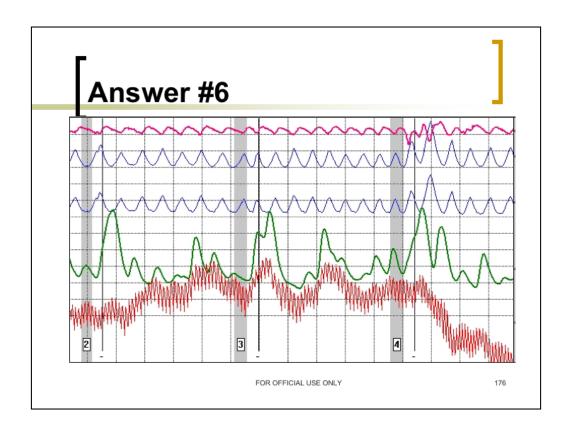
Best Guess #5 – What do you see?

Answer #5

S   1C1   1R1   1R2

174
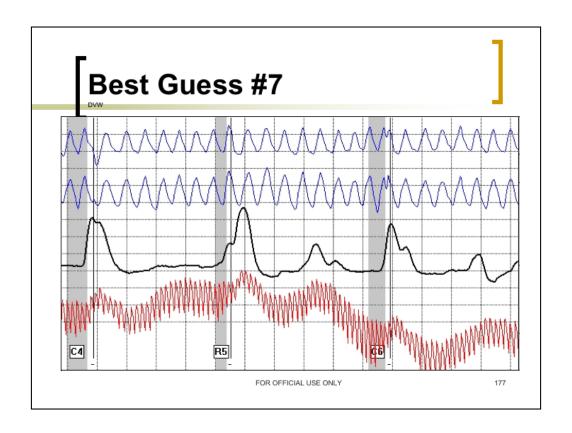
Answer #5 – Toe press
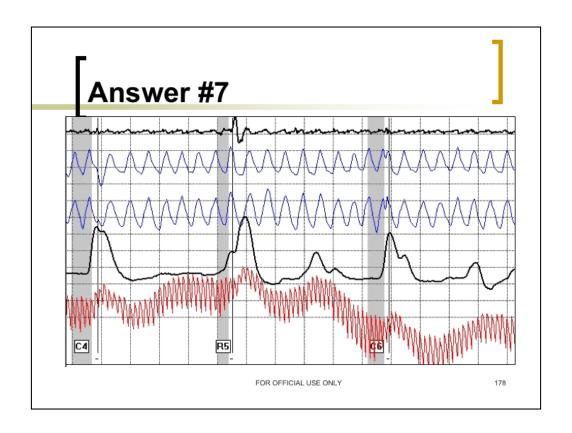
Best Guess #6 – What do you see?

Answer #6

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Answer #6 - AS
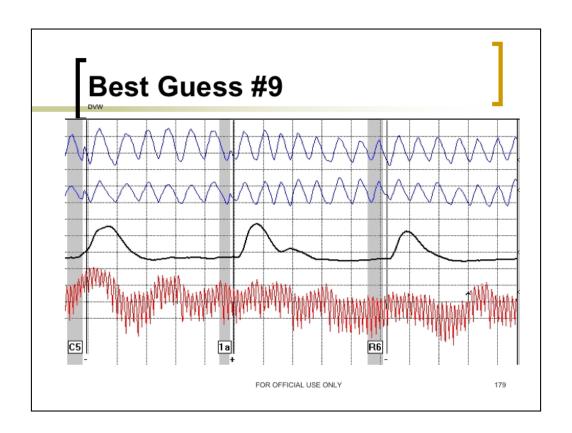
Best Guess #7 – Best guess?

Answer #7

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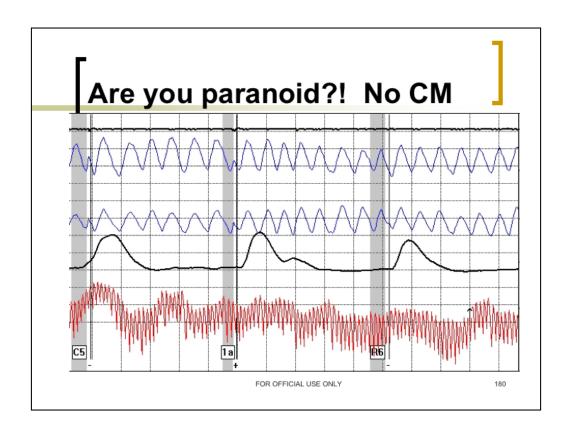
Answer #7 – Examiner tried to be sneaky – AS at the relevant question
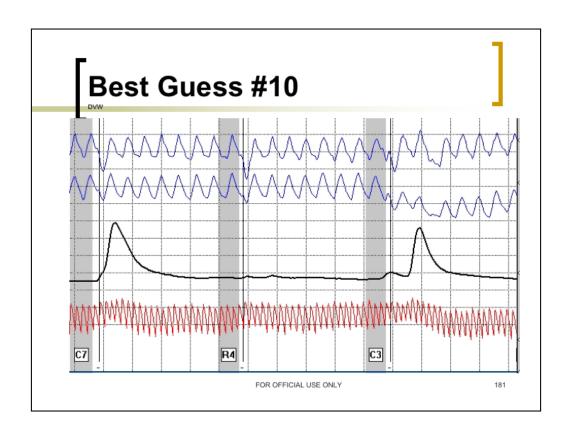
• CM at the relevant questions are not uncommon – some folks just do not study well before taking a test
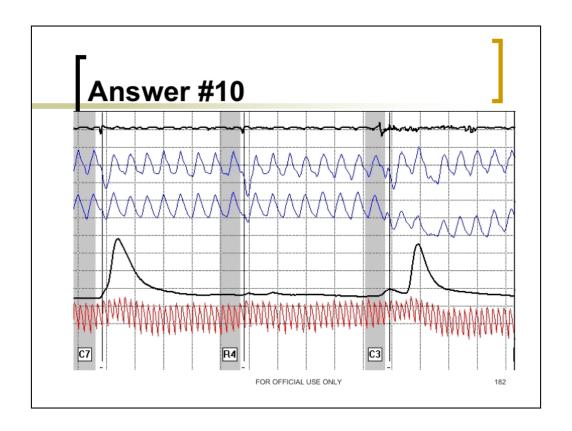
Best Guess #9 – Nothing to see
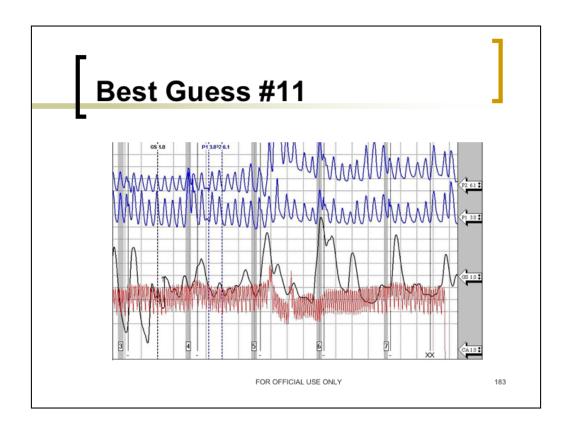
Answer #9 – No CM activity in the sensor.
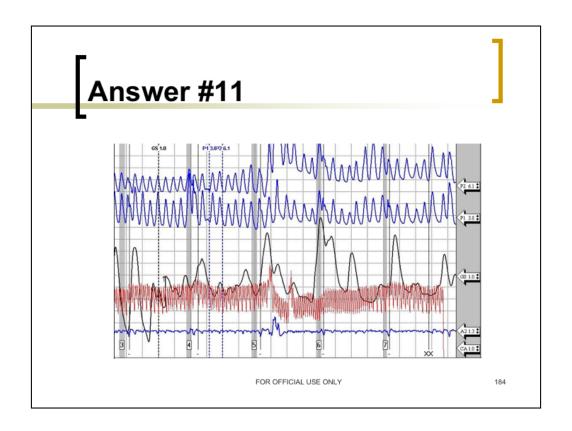
Best Guess #10 – Take a guess.

Answer #10 – C3 pretty obvious

• Examinee doing AS – slowly increasing as Doug Williams suggests and slowly decreasing pressure. Being very subtle
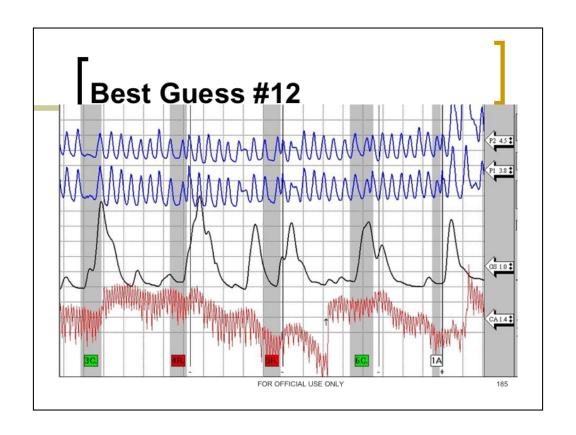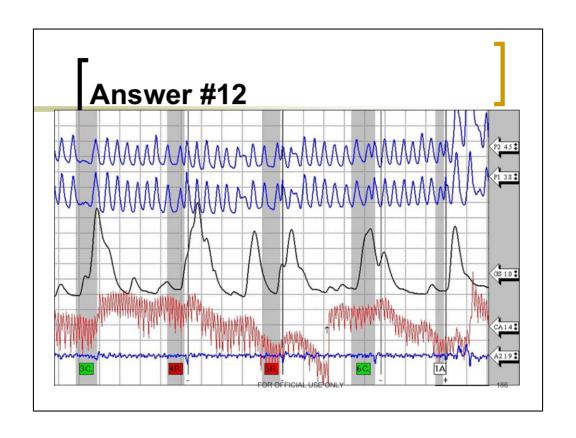
Best Guess #11 – Number 5

• Attacking the ACQT key

Answer #11

AS at the key

Best Guess #12 – What do you see?

Answer #12

•Note the distortion in the sensor does not match up with the answer at 3C & 6C, but does match up with the answer marks at the relevants.

•3C & 6C are toe presses & 1A is an anal sphincter.