

# STATE OF NEVADA

## BOARD OF COMMISSIONERS

Jim Gibbons  
GOVERNOR

Catherine Cortez Masto  
ATTORNEY GENERAL

Ross Miller  
SECRETARY OF STATE



HOWARD SKOLNIK  
DIRECTOR

GREG COX  
DEPUTY DIRECTOR

LENARD VARÉ  
WARDEN

## DEPARTMENT OF CORRECTIONS

*"A Nevada with no more victims"*

**SOUTHERN NEVADA CORRECTIONAL CENTER**

1 Prison Road, PO Box 20100  
Jean, NV 89109

### Authorization for Public Release

We have read the Brain State Technologies report on the demonstration performed with the Nevada Department of Corrections and deem to the best of our ability that the information contained therein is accurate.

We acknowledge that many of the details involving the participating inmates and the positive changes which were witnessed following Brain State Conditioning™ of those inmates could not be included. These details were omitted to preserve inmate anonymity as well as maintain prison safety and security.

We authorize publication of the report.

A handwritten signature in black ink, appearing to read "H. Skolnik", written over a horizontal line.

Howard Skolnik, Director

A handwritten signature in black ink, appearing to read "Lenard Vare", written over a horizontal line.

Lenard Vare, Warden

# Demonstration Summary

conducted by  
**Brain State Technologies™**

with  
**Inmates**

from the  
**Nevada Department of Corrections  
Southern Nevada Correctional Center**

**Howard Skolnik, Director  
Lenard Varé, Warden**



15150 N Hayden Rd; Suite #106, Scottsdale, AZ 85260  
Office 480.588.6840, Fax 480.588.6826, [www.BrainStateTech.com](http://www.BrainStateTech.com)

## **Purpose/Scope of Demonstration**

To establish the effectiveness of Brain State Conditioning™ with inmates in a prison setting over a short training time period. The scope includes performance of Brain State Conditioning™ for four or more inmates within a three week time period. Six inmates were chosen by Warden Lenard Varé of the Southern Nevada Correctional Center in Jean, Nevada. Brain State Conditioning™ was accomplished with these inmates between August 27 and September 13, 2007.

For purposes of safety for the inmates and their families, specific personal data on each inmate cannot be made public. Specific comments that could identify the inmates have also been kept private for the same reasons.

The inmates participating in the study are all male and represented African-American, Hispanic, Native American and Caucasian ethnic groups. None of the participants were over 25 years of age. All had previous drug use of one or more of the following substances; methamphetamine, alcohol, marijuana, cocaine and various street drugs. Some participants attended a mandated drug treatment program before and during incarceration, some had not. Crimes of the participants ranged from various forms of assault, some with a deadly weapon, burglary / robbery / theft, manslaughter, and other violent actions.

The Brain State Conditioning™ results for the inmates were measured using the following criteria:

- 1. Inmate stated objectives.** Each inmate was asked to state the objectives that they wished to accomplish during the Brain State Conditioning™ demonstration process.
- 2. Observed inmate behavior** from Brain State Technologies™ (BST) staff.
- 3. Inmate comments.** Inmates were questioned about the quality of their sleep, because sound and restorative sleep is often an issue for many people. A lack of restorative sleep is an indicator of the level of brainwave balance / imbalance of the individual. Inmates were also asked to provide additional information about their daily behavioral patterns that they thought was of significant importance.
- 4. EEG assessment data** both pre- and post- Brain State Conditioning™. Graphs are presented in the review of each participant in the following pages to assist the reader in understanding and discussing the change in brainwave patterns that occurred for each participant.

Brain pathways or networks utilize energy much like a computer network utilizes energy. There are different lobes of the brain that appear to control different human functions, and there are different levels of energy – or frequencies - within these lobes used for different functions as well. For instance, higher energy levels (or frequencies) are needed to execute higher performance tasks (like swinging a golf club), and lower

energy levels (frequencies) are needed to perform lower performance requirement tasks (like sleeping). So, when the brain is at rest (eyes closed with no activity to perform) then the brain is expected to have dominant patterns in the low to mid-range frequencies. When high frequencies (called Beta and High Beta waves) are dominant when the brain is at rest it indicates an imbalance. Frequency imbalance can be measured and read like reading the rings of a tree to indicate what kinds of trauma a person has experienced.

Additionally, the left and right sides of the brain are expected to function within mathematical differentials of less than 10%. So, if one side of the brain functions much differently at certain energy levels (or frequencies) than the other then this generally means that a trauma has occurred and left a pattern in the brain to cause the on-going imbalance.

Trauma is the basis for most brain imbalances, and trauma in this regard is defined as any situation which the brain perceives as threatening for its existence. Of course, some traumas are more threatening than others and therefore can leave greater or more impactful imprints. For instance, a car wreck can leave the survivor with an imbalance, but a major brain hemorrhage can leave the survivor with an even greater imbalance. These trauma imprints in the brain are thought to be the primary causes for a brain to continue functioning in an imbalanced state.

The frequencies changes during the Brain State Condition™ process are graphed and presented for each inmate. The trauma prints viewed in the assessment data taken from each inmate are indicated as well.

**5. PTSD Evaluation** using the “PTSD Checklist – Stressor Specific Version (PCL-S). This is a standardized measure used as a reliable measure for PTSD symptoms. It was administered by David Berceci, Ph.D Clinical Social Worker from Brain State Technologies™. The PCL-S is a seventeen item self-report measure of the seventeen DSM-IV symptoms of PTSD (Weathers et al., 1993). Respondents rate how much they were “bothered by that problem in the past month”. Items are rated on a five point scale ranging from 1 (“not at all”) to 5 (“extremely”). The PCL-S (specific) asks about problems in relation to an identified “stressful experience.”

The final results for each participant were calculated simply by calculating the pre/post individual scores for each of the seventeen items as well as the total score of the entire checklist for each participant (Table 1-1 thru 1-6). A summary of the total scores of all the participants was also included for quick reference (Table 7). For the purpose of methodological accuracy, another statistical calculation was performed that excluded participant #6. This provides the statistical uniformity of the other five participants who received the same number of BST sessions (Table 8).

**6. Observed inmate behavior.** This behavior was noted and recorded by Warden Lenard Varé and staff of the Southern Nevada Correctional Center in Jean.

Brain State Conditioning™ was accomplished using standard Brain State Technologies™ procedures and standard Brain State Technologies™ protocol generated by the BST Optimization Suite Assessment software.

Along with the Brain State Conditioning™ procedure, the inmates were given “Body Pure”, a non-prescription detoxification product from Heel, Inc.; “Cerebrum Compositum”, a non-prescription homeopathic remedy for nervous tissue distressed by missing nutrients and other biochemical factors, and for thinking facilitation from Heel, Inc.; and Omega-3 supplements. These supplements were provided to off-set dietary limitations of the correctional facility and to off-set the histories of inmate drug use that were consistent for the six inmates who began Brain State Conditioning™ in the program.

Three days after the demonstration program began, *Inmate #6* violated a rule and was thereby removed from the program and placed in solitary confinement. The program was completed with 5 inmates, however *Inmate #6* returned to the program for the last 2 days to determine if Brain State Conditioning™ could assist him.

**Warden Varé** comments on each individual inmate within the discussion of same. Following is a quote from Warden Varé explaining his premise for choosing the participating inmates:

*“My personal observations about the inmates and my own experiences are included in this letter. I should note that I had no knowledge of the past criminal history of the inmates that were selected. I generally attempt to stay away from that information unless it becomes necessary. I have found that it is easier to treat all inmates fairly and consistently when I do not know their prior criminal history. I selected the inmates based upon a variety of factors. The main elements were attitude, personality, ability to adjust to difficult situations, disciplinary history and temperament.*

*I did not select inmates that were easy to deal with and found a group that came from varied backgrounds. Almost all of them were gang members with a high probability of engaging in disruptive behavior. I have provided a brief history of my interaction with the inmates in my observations. None of the participants were promised anything in return for their involvement in the training. They all volunteered after I met with them and explained the concept of the training. They felt privileged to be participating and volunteered their time without any encouragement from myself or other staff. Since we are primarily a youthful offender facility, I attempted to find inmates in the younger age group. None of the participants were over the age of 25.”*

## Individual Inmate Experience

### 1. Inmate 1

#### 1.1. Inmate stated objectives.

The level of accomplishment is scored from 1=least to 10=most/perfect

Goal #	Goal ID	Pre	Post
Goal 1	Anger Management	1	6
Goal 2	Increase Attention/Focus	1	5
Goal 3	Sense of happiness/Well-being	3	4
Goal 4	Overcome depression increase motivation	4	5
Goal 5	Improvement in social interaction	4	9
<b>TOTAL</b>		<b>13</b>	<b>29</b>

#### 1.2. BST observations

*Inmate 1* exhibited distrust for the trainers and for the process he had volunteered to participate in. He complained about not sleeping well and expressed concern about his family.

After two sessions, *Inmate 1* reported sleeping “great” and seemed calmer. For most of the sessions he had body twitches in either arms and/or legs which were obvious releases of anxiety with greater calmness. *Inmate 1* had stolen an ear clip a trainer dropped and returned it a few days later apologizing for his action. *Inmate 1* reported that his social interactions were easier – more natural and with less fear. He stated that a Corrections Officer had complimented him on being respectful and easy to work with. All of this was a major shift for *Inmate 1* who was extremely animated in expressing his gratitude for this training.

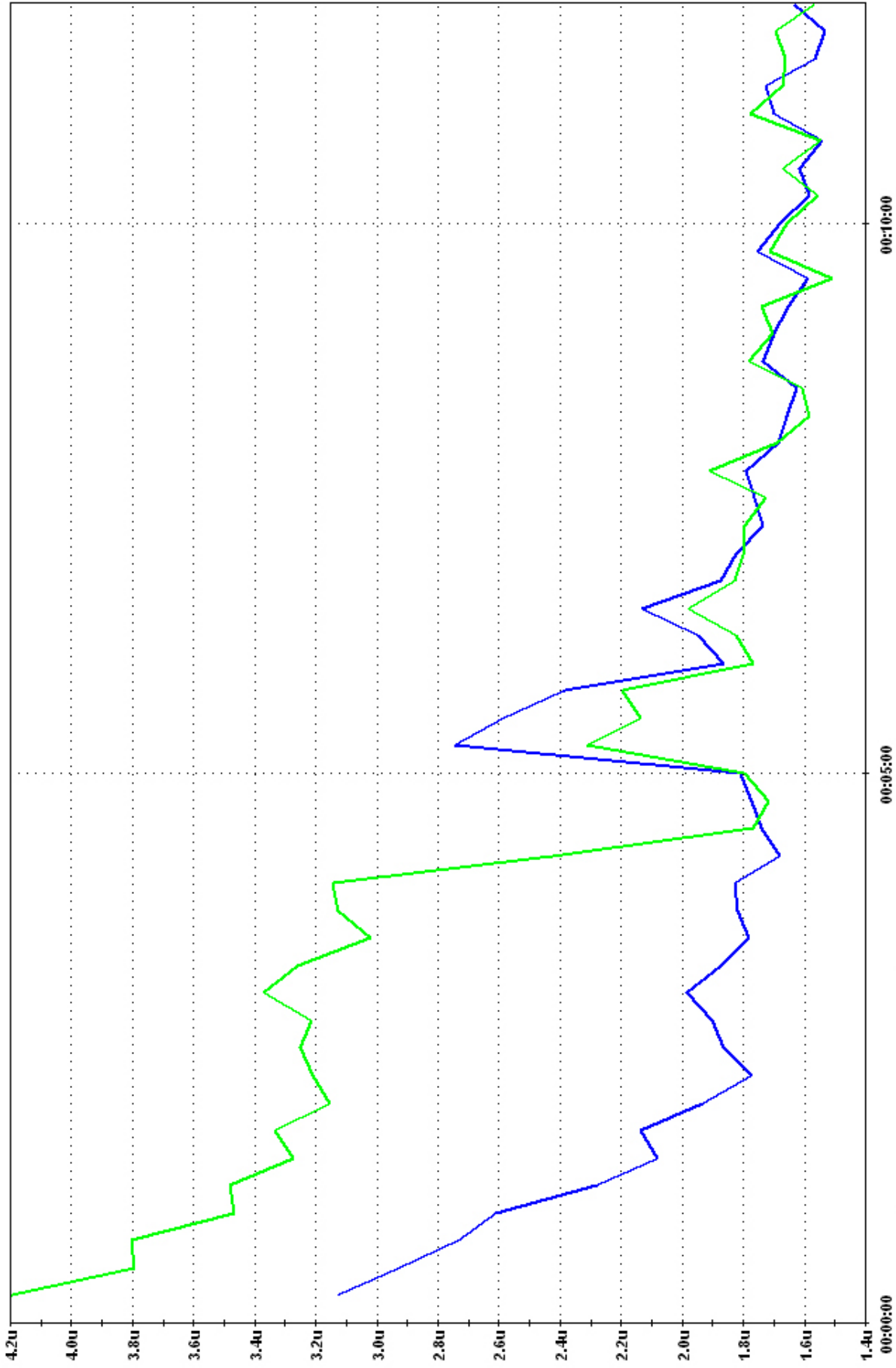
#### 1.3. EEG Assessment Data

The initial brainwave assessment for *Inmate 1* indicated that he had an early life or birthing trauma of infringement. Infringement trauma may include such things as delivery problems, hostile or trauma evoking environment, and/or abuse.

The final brainwave assessment indicated that this imbalance was changed during the training process. The assessment results indicated that it is likely he will continue to experience changes as the brain continues to integrate following the completion of Brain State Conditioning™ training.

An example of *Inmate 1*'s training can be seen in the following graph. This graph demonstrates that the high energy range of the right side of the brain (indicated by the green line) was very high and very differentiated from the left. In this recorded Brain State Conditioning™ training session as well as others, *Inmate 1* successfully balanced and harmonized the brain areas being trained. This balance produces a state of calm and clear thinking without need to maintain an alert state where fight-or-flight behavior is easily activated.

# L/R High Beta Avgs



Signals  
L High Beta Avg:Out  
R High Beta Avg:Out

Inmate #1 14:17:41PM Fri, Aug 31 2007

#### 1.4. PTSD Evaluation

Items are rated on a 5-point scale ranging from 1 (not at all) to 5 (extremely).

<b>Participant 1 – Table 1-1</b>		
<b>QUESTION</b>	<b>Pre-test score</b>	<b>Post-test score</b>
1. Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?	5	1
2. Repeated, disturbing dreams of a stressful experience from the past?	1	1
3. Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it)?	4	1
4. Feeling very upset when something reminded you of a stressful experience from the past?	3	2
5. Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past?	4	2
6. Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it?	2	4
7. Avoid activities or situations because they remind you of a stressful experience from the past?	3	1
8. Trouble remembering important parts of a stressful experience from the past?	4	4
9. Loss of interest in things that you used to enjoy?	1	4
10. Feeling distant or cut off from other people?	3	1
11. Feeling emotionally numb or being unable to have loving feelings for those close to you?	1	1
12. Feeling as if your future will somehow be cut short?	1	1
13. Trouble falling or staying asleep?	2	1
14. Feeling irritable or having angry outbursts?	5	2
15. Having difficulty concentrating?	3	2
16. Being “super alert” or watchful on guard?	5	3
17. Feeling jumpy or easily startled?	5	1
<b>TOTAL</b>	<b>52</b>	<b>32</b>

#### 1.5. Warden Observations

***Pre Brain State Conditioning:** “Inmate #1 is currently a member of a prison gang. He is rumored to have participated in a number of fights and assaults while in prison. He had some new changes in his life which created an emotional crisis. He came to me several months ago asking for advise on how to deal with being a parent while managing the issues he had as the member of a prison gang. He was also dealing with attempting to reconcile with loved ones and the negative impacts of his*

*incarceration. Although he continued to participate in the gang rituals, I feel that he was becoming increasingly disenchanted with the gang. He wanted to start over and was desperate to reconnect with his family. He often talked about possibly leaving the area upon his release from custody to start a new life someplace else. He was usually agitated with the situation he was in and appeared to be depressed most of the time.”*

**Post-Brain State Conditioning™:** *“Inmate #1 continues to want to remain free of the gang lifestyle and is making plans to start a new life with his loved ones. He has asked to meet with me once a week to discuss his progress. He appears to have little fear of talking to me in the presence of other inmates. This would not have been common behavior for inmates in a gang.”*

## 2. Inmate 2

### 2.1. Inmate stated objectives.

The level of accomplishment is scored from 1=least to 10=most/perfect

Goal #	Goal ID	Pre	Post
Goal 1	Anger Management	2	8
Goal 2	Increase Attention/Focus	1	8
Goal 3	Improvement in social interaction	3	6
Goal 4	Increase discernment / Intuition	5	8
Goal 5	Improve Sleep	2	8
<b>TOTAL</b>		<b>13</b>	<b>38</b>

### 2.2. BST observations

*Inmate 2* began training as a frightening individual, making training staff uncomfortable to be in a room with him. He was unable to look at anyone directly, moved frequently in jerky patterns – some of which seemed threatening, and was unable to sit in a chair with either his back against the chair back or his arms on the arm rests of the chair. His posture was stiff and when he looked from side-to-side his entire body turned. *Inmate 2* had difficulty sleeping, difficulty controlling his anger and seemingly at times argued with his own position when talking about something. *Inmate 2* had difficulty focusing and maintaining attention and usually could not finish a sentence. He had difficulty with social interaction and could not look at another person more than a few seconds. He had great difficulty with sleep, reporting that he slept one or two hours and then was up for at least that amount of time before going back to sleep for one or two hours.

*Inmate 2* calmed almost immediately following the first session. He began exhibiting more relaxed states. Following the first couple days of training he would relax into the chair fully, and reported that he had gone to bed at 5 PM and did not awake until 6 AM the next morning. Throughout the training, *Inmate 2* made progress in all aspects of his demeanor, and in three weeks could joke easily, hold his attention to

one topic, present a calm and natural human state, and was incredibly appreciative of the opportunity he had been given in the Brain State Conditioning™ demonstration.

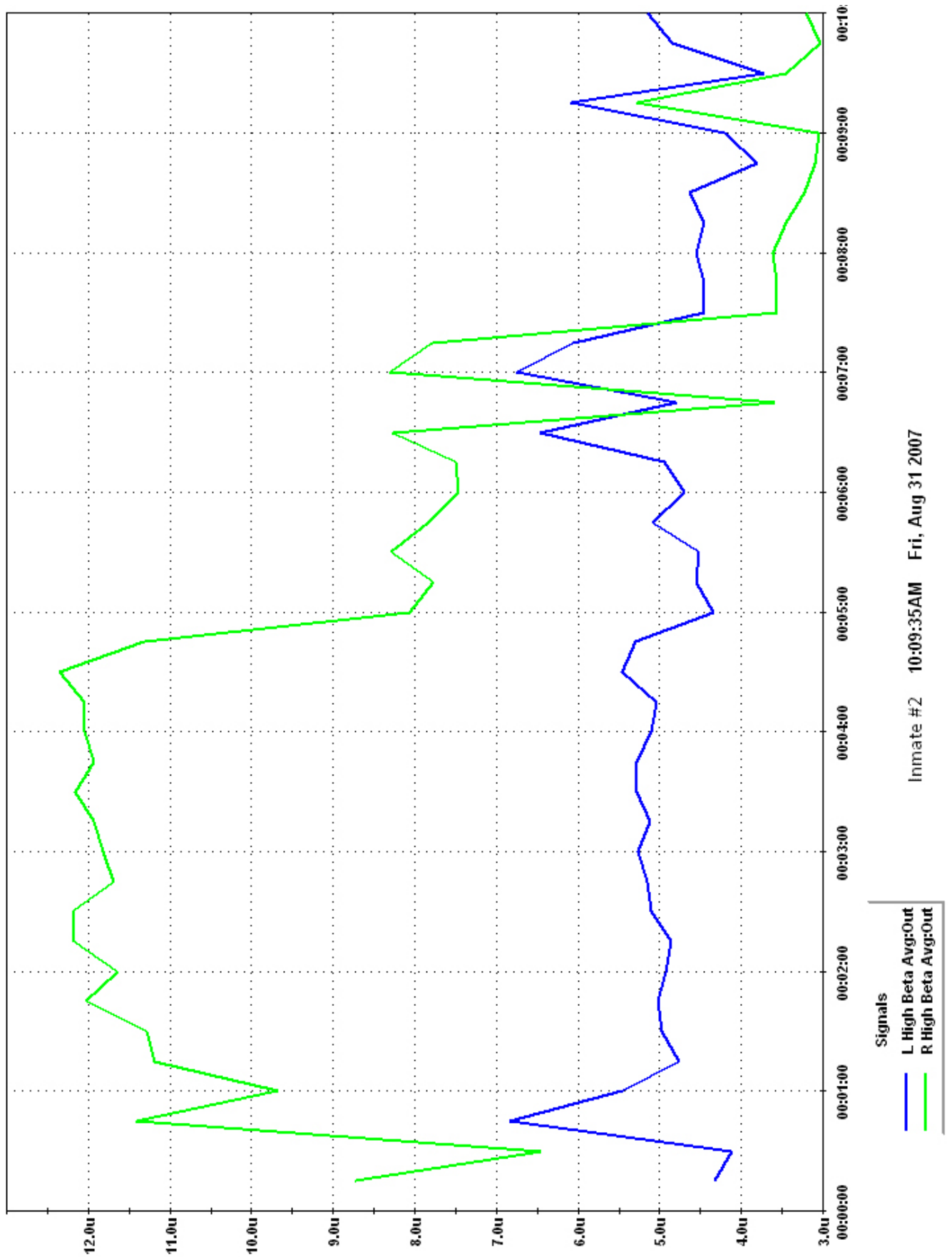
In less than ten days *Inmate 2* literally showed himself to be a new person to all BST Staff .

### **2.3. EEG Assessment Data**

Initial assessment for *Inmate 2* indicated an early childhood trauma of isolation/ abandonment that evoked a freeze response. Additionally, this imbalance was seen most prominently in the occipital lobes where vision would be most affected. When energy is measured left and right for the occipitals we expect to see a difference of below 10% between one side and the other. *Inmate 2* had a total of 106 uV on the left and 84 uV on the right indicating a difference of over 26%.

Following the three week Brain State Conditioning™ process, *Inmate 2* had occipital lobes of 80 on the left and 83 on the right. As an example of *Inmate 2*'s training you can observe from the following graph that the right side differential is lessened and the energy is lessened which creates a more calm and balanced brain from which to work, sleep, and interact.

# L/R High Beta Avgs



## 2.4. PTSD Evaluation

Items are rated on a 5-point scale ranging from 1 (not at all) to 5 (extremely).

<b>Participant 2 – Table 1-2</b>		
<b>QUESTION</b>	<b>Pre-test score</b>	<b>Post-test score</b>
1. Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?	2	1
2. Repeated, disturbing dreams of a stressful experience from the past?	1	1
3. Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it)?	1	1
4. Feeling very upset when something reminded you of a stressful experience from the past?	4	2
5. Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past?	3	2
6. Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it?	4	5
7. Avoid activities or situations because they remind you of a stressful experience from the past?	3	1
8. Trouble remembering important parts of a stressful experience from the past?	1	1
9. Loss of interest in things that you used to enjoy?	1	1
10. Feeling distant or cut off from other people?	3	1
11. Feeling emotionally numb or being unable to have loving feelings for those close to you?	3	2
12. Feeling as if your future will somehow be cut short?	1	2
13. Trouble falling or staying asleep?	4	1
14. Feeling irritable or having angry outbursts?	4	1
15. Having difficulty concentrating?	5	1
16. Being “super alert” or watchful on guard?	2	2
17. Feeling jumpy or easily startled?	1	1
<b>TOTAL</b>	<b>43</b>	<b>26</b>

## 2.5. Warden Observations

*Pre-Brain State Conditioning™ “I had built a rapport with Inmate #2 over the past few months. He was previously associated with a prison gang and had been influenced by the gang culture. He had been a misfit and had slowly extricated himself away from the gang culture and narrowed his circle of friends to other inmates that kept to themselves. He did not want to be dragged into the gang culture and wanted to be seen as an inmate who had rapport with me. He would deliberately find me each time I was out on the yard and spent time talking to me. It is my opinion that he*

*did this with the knowledge that other inmates observed this interaction and would therefore be hesitant about asking him to do anything illegal. His only close friend was another inmate in a similar situation. He appeared to be paranoid and always worried about other inmates. His physical demeanor suggested that he was nervous and anxious. He constantly looked over his shoulder and could not maintain eye contact for any length of time. He had racing thoughts and he would change the topic of the conversation several times during my meetings with him. I believe that in addition to his paranoid behavior, he was also suffering from some form of attention deficit disorder.”*

**Post-Brain State Conditioning™:** *“Inmate #2 appears to be very relaxed and can hold an engaging conversation without being nervous. He does not look agitated and in several meetings that I have had with him, he is attentive and does not move from topic to topic during a conversation.”*

### 3. Inmate 3

#### 3.1. Inmate stated objectives.

The level of accomplishment is scored from 1=least to 10=most/perfect

Goal #	Goal ID	Pre	Post
Goal 1	Improvement in Social Interactions	5	7
Goal 2	Anger Management	3	9
Goal 3	Increase Attention / Focus	1	7
Goal 4	Memory	3	7
Goal 5	Sense of Happiness / Well-being	1	10
<b>TOTAL</b>		<b>13</b>	<b>40</b>

#### 3.2. BST observations

*Inmate 3* had a host of physical problems during the third week of the demonstration including a cold and the flu. When he began training he was very reserved, made little eye contact, and did not discuss anything except for answering direct questions. He explained that he was “a loner” and stayed by himself, and within himself most of the time.

*Inmate 3* completed the training of the Brain State Conditioning™ process even though he also complained of being ill. He was noted as having a number of physical releases during the training with his feet, hands, arms, and legs twitching at times. A deep sense of relaxation was observed following those releases. *Inmate 3* reported that he slept better, felt better emotionally and socially, and repeatedly expressed appreciation for having the opportunity to participate.

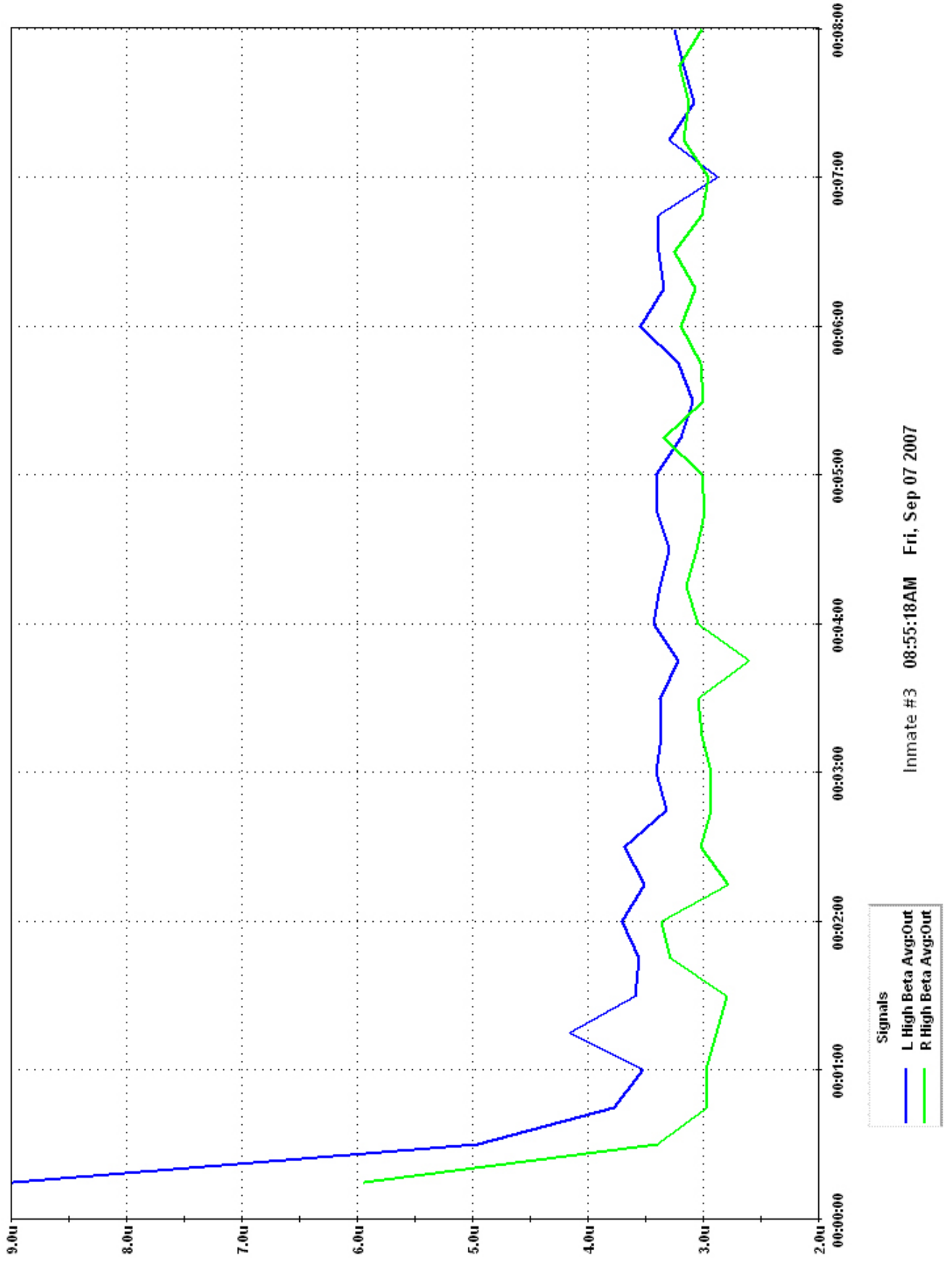
#### 3.3. EEG Assessment Data

*Inmate 3* presented an imbalance indicative of an early childhood trauma of isolation/

abandonment that evoked a freeze response. Additionally, this imbalance was seen most prominently in the central strip where rational thinking would be most prominent. Depression was also seen as a likely state for *Inmate 3* when he began. When energy is measured left and right for the central strip we expect to see a difference of below 10% between one side and the other. *Inmate 3* had a total of low frequencies of 58 uV on the left and 29 uV on the right indicating a difference of over 100%.

Following the three week Brain State Conditioning™ process, *Inmate 3* had central strip low frequencies of 32 on the left and 32 on the right. As an example of *Inmate 3*'s training you can observe from the following graph that the left-right differential is lessened and the energy is lessened which creates a more calm and balanced brain from which to work, sleep, and interact. And, especially in the central strip area, this balance indicates a relief from depression which *Inmate 3* experienced according to his own reports as well as observed behavior and data.

# L/R High Beta Avgs



### 3.4. PTSD Evaluation

Items are rated on a 5-point scale ranging from 1 (not at all) to 5 (extremely).

<b>Participant 3 – Table 1-3</b>		
<b>QUESTION</b>	<b>Pre-test score</b>	<b>Post-test score</b>
1. Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?	1	1
2. Repeated, disturbing dreams of a stressful experience from the past?	1	1
3. Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it)?	2	1
4. Feeling very upset when something reminded you of a stressful experience from the past?	1	1
5. Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past?	1	1
6. Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it?	5	1
7. Avoid activities or situations because they remind you of a stressful experience from the past?	1	4
8. Trouble remembering important parts of a stressful experience from the past?	3	1
9. Loss of interest in things that you used to enjoy?	1	1
10. Feeling distant or cut off from other people?	5	1
11. Feeling emotionally numb or being unable to have loving feelings for those close to you?	5	1
12. Feeling as if your future will somehow be cut short?	1	1
13. Trouble falling or staying asleep?	1	1
14. Feeling irritable or having angry outbursts?	1	1
15. Having difficulty concentrating?	5	2
16. Being “super alert” or watchful on guard?	1	1
17. Feeling jumpy or easily startled?	3	2
<b>TOTAL</b>	<b>38</b>	<b>22</b>

### 3.5. Warden Observations

**Pre Brain State Conditioning:** *“Inmate #3 is another inmate that is trying to get out of the gang culture and feels that by associating with certain inmates, he would not be pressured by inmates from other gangs. He is very impressionable and with the right amount of pressure, he could easily follow the lead of his peers. I noticed him to be moody with periods of depression followed by periods where he appeared quite normal.”*

**Post-Brain State Conditioning™:** *“My contact with Inmate #3 is limited and I have not had personal contact with him since he completed the training.”*

## 4. Inmate 4

### 4.1. Inmate stated objectives.

The level of accomplishment is scored from 1=least to 10=most/perfect

Goal #	Goal ID	Pre	Post
Goal 1	Enhance Cognitive Performance	5	7
Goal 2	Sense of Calm-Manage Anxiety	3	9
Goal 3	Improve sleep	1	7
Goal 4	Self-confidence	3	7
Goal 5	Did not have 5th goal	n/a	n/a
<b>TOTAL</b>		<b>12</b>	<b>30</b>

### 4.2. BST observations

*Inmate 4* presented as nervous and extremely distrusting. He did not look at anyone or interact verbally unless asked a direct question. He seemed tense and very eager to be as far away from the process as quickly as he was able. However, *Inmate 4* did seem curious about the process and willing to do what he had to do to participate.

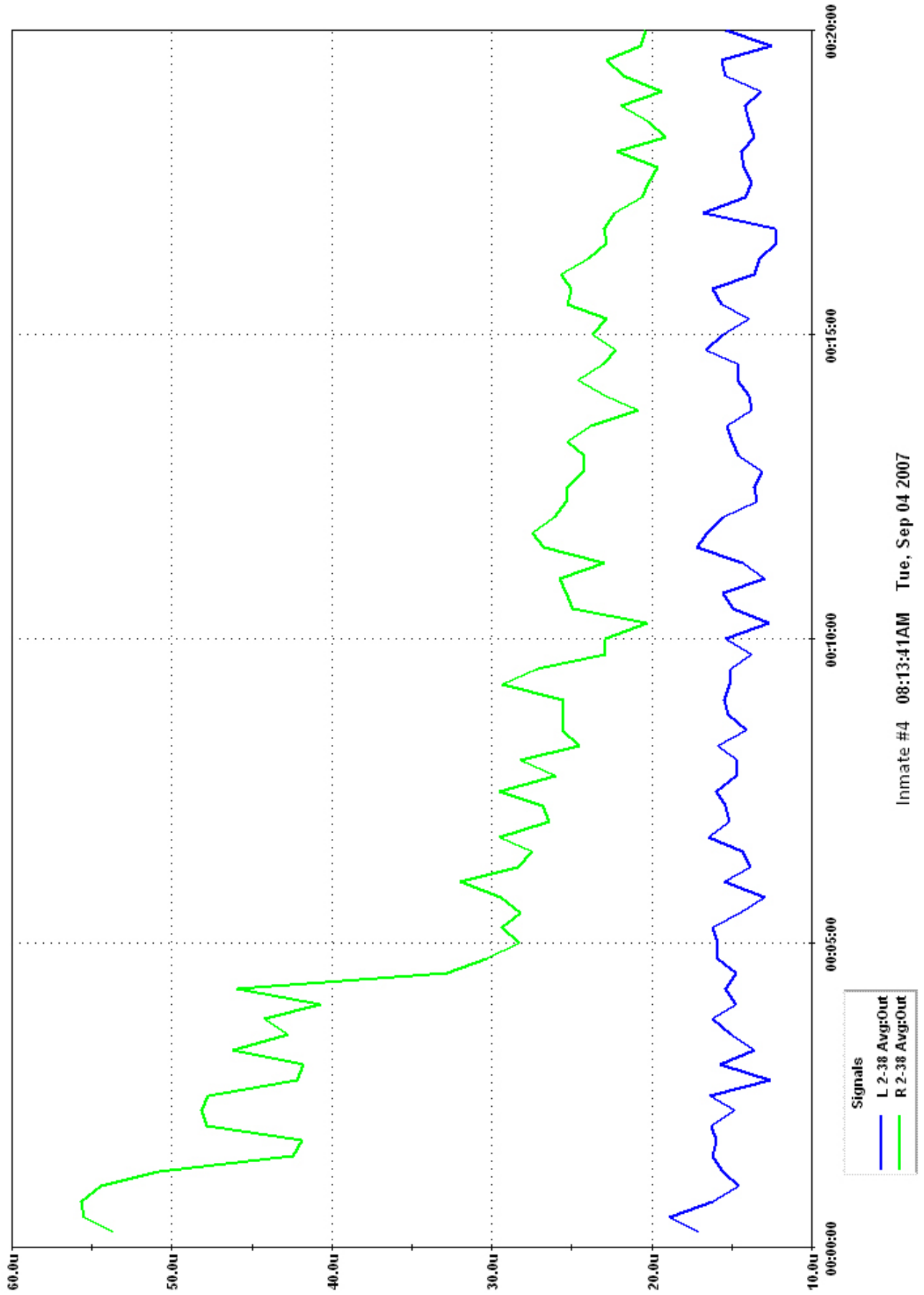
During the Brain State Conditioning™ training, *Inmate 4* exhibited repeated physical releases with both hands and feet, legs and arms jerking and sometimes moving sporadically. He both reported and appeared to be much more calm and much more happy. He also reported that his sense of hearing had improved. He reported that incidents that previously would have caused him a lot of distress and angry outbursts now simply cause him to feel a little uncomfortable and then seem unimportant. For instance, he lost while playing poker which would have previously been a trigger for rage and anger but was now just the results of a game, and he reported that he simply forgot about it quickly without incident.

### 4.3. EEG Assessment Data

*Inmate 4* presented an imbalance during his initial assessment indicative of an early childhood trauma of isolation/abandonment that evoked a freeze response. The degree of this imbalance as well as the frequency range which dominated in the unbalanced areas, seemed to indicate that pre-natal or infancy was marked radically for *Inmate 4* by a freeze response pattern in the brain. Such things as fetal alcohol syndrome or lack of nutrition or nurture could be the source of this condition. *Inmate 4*'s left side was 125, right 38; low frequencies only – left 82, right 19.

Following Brain State Conditioning™ training, his left side was 44, right 45; and low frequencies only – left 22 and right 23. Other indicators in the brain assessment data indicated that *Inmate 4* was much less prone to anger or to need substances to self-medicate in order to feel calm. An indication of *Inmate 4*'s results are in the graph below where the right and left sides are brought into balance and calmed.

# L/R 2-38 Avgs



Inmate #4 08:13:41AM Tue, Sep 04 2007

#### 4.4. PTSD Evaluation

Items are rated on a 5-point scale ranging from 1 (not at all) to 5 (extremely).

<b>Participant 4 – Table 1-4</b>		
<b>QUESTION</b>	<b>Pre-test score</b>	<b>Post-test score</b>
1. Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?	5	2
2. Repeated, disturbing dreams of a stressful experience from the past?	4	1
3. Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it)?	2	1
4. Feeling very upset when something reminded you of a stressful experience from the past?	5	1
5. Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past?	1	1
6. Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it?	3	1
7. Avoid activities or situations because they remind you of a stressful experience from the past?	5	3
8. Trouble remembering important parts of a stressful experience from the past?	3	1
9. Loss of interest in things that you used to enjoy?	3	2
10. Feeling distant or cut off from other people?	3	2
11. Feeling emotionally numb or being unable to have loving feelings for those close to you?	3	1
12. Feeling as if your future will somehow be cut short?	3	2
13. Trouble falling or staying asleep?	1	1
14. Feeling irritable or having angry outbursts?	3	1
15. Having difficulty concentrating?	2	1
16. Being “super alert” or watchful on guard?	2	2
17. Feeling jumpy or easily startled?	2	1
<b>TOTAL</b>	<b>52</b>	<b>24</b>

#### 4.5. Warden Observations

**Pre Brain State Conditioning:** “Inmate #4 is another member of a gang who tends to be a follower and is extremely impressionable. He is rumored to be violent and according to other inmates, has participated in gang violence while at SNCC. I did not have a lot of other information on this particular inmate. He generally associated with the gang and showed respect as long as respect was shown toward him. He did get into verbal confrontations with Correctional Officers but it did not escalate into anything serious.”

**Post Brain State Conditioning:** “My contact with Inmate #4 is limited and I have not had personal contact with him since he completed the training.”

## 5. Inmate 5

### 5.1. Inmate stated objectives.

The level of accomplishment is scored from 1=least to 10=most/perfect

Goal #	Goal ID	Pre	Post
Goal 1	Improvement in Social Interactions	5	7
Goal 2	Anger management	3	9
Goal 3	Increase Attention/Focus	1	7
Goal 4	Memory	3	7
Goal 5	Sense of happiness/Well-being	1	10
<b>TOTAL</b>		<b>13</b>	<b>40</b>

### 5.2. BST observations

*Inmate 5* began his conversations with BST staff by trying to take control of the situation of which he knew nothing about. He seemed to enjoy intimidating people, and most of the staff of BST found him to be extremely untrustworthy and threatening.

*Inmate 5* had some difficulty settling into training due to his persistence in complaining about the sounds and/or other things which made him feel uncomfortable. *Inmate 5* reported that he slept very little and felt he slept with one eye open most of the time when he did sleep.

During the Brain State Conditioning™ process, *Inmate 5* progressed from being obstinate to co-operative and gracious. He exemplified good manners, spoke easily of how he had once reacted as an angry warrior to many situations. Similar situations now were met with the ability and desire for self-control and the result was a feeling of personal power. *Inmate 5* described how he met with his family and explained to them how fortunate he was to be participating in the demonstration and be able to change his brain to make him a new, normal, and evolving individual. Based on the situations which arose during the three weeks, *Inmate 5's* claim to be a new human being was witnessed by many of the Corrections Officers and other staff, as well as other inmates. Additionally, *Inmate 5* tested on a sociology book he checked out of the library and found he had read the entire book, cover to cover, and had a great grasp of the information contained therein. *Inmate 5's* ability to read previously was limited to two sentences. He had not previously been able to complete reading even a comic book.

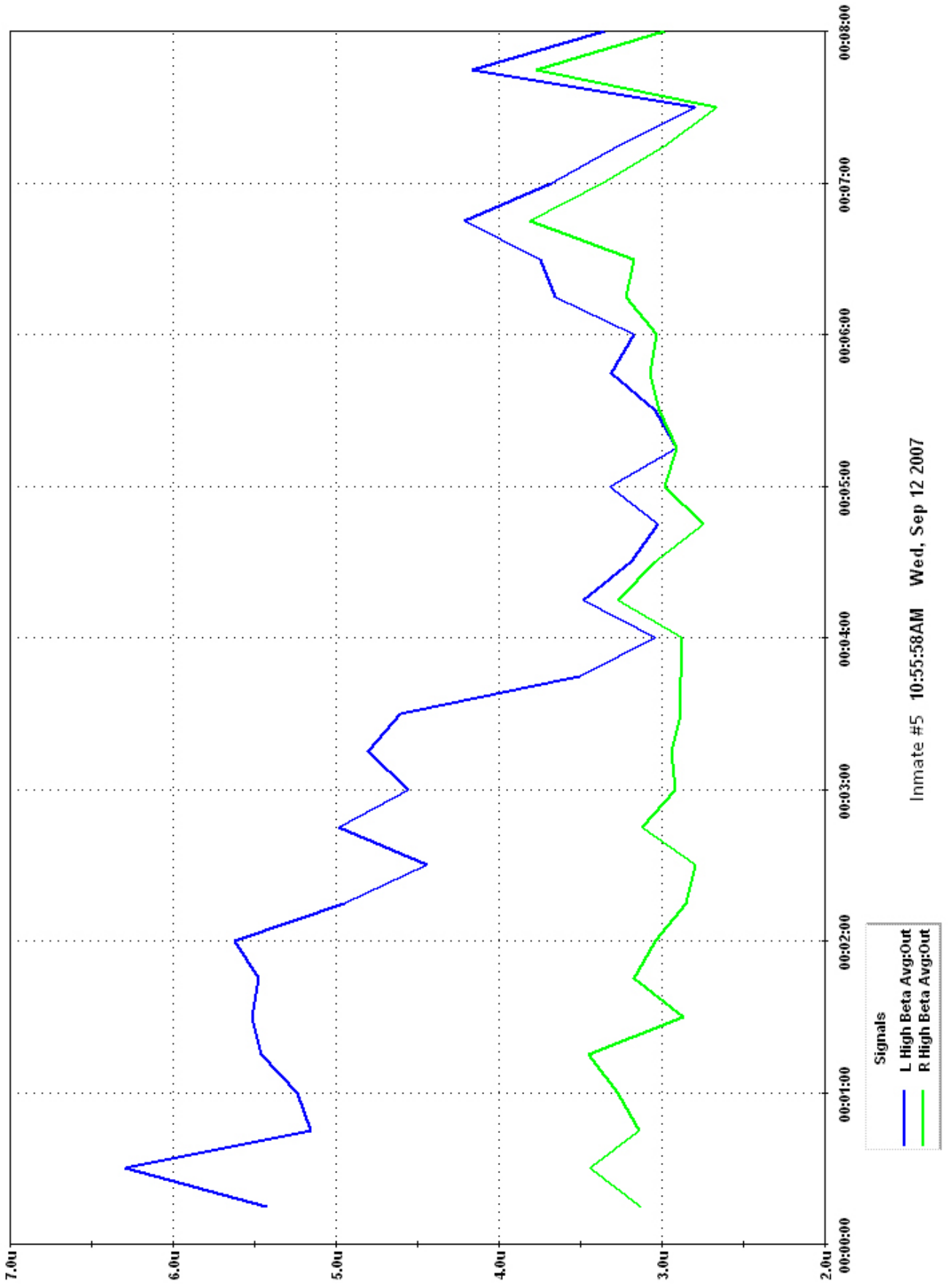
### 5.3. EEG Assessment Data

*Inmate 5* presented an imbalance during his initial assessment indicating an early childhood trauma of isolation/abandonment that evoked a freeze response. The degree of this imbalance as well as the frequency range which dominated in the unbalanced areas, seemed to indicate that pre-natal or infancy was marked radically for *Inmate*

5 by a freeze response pattern in the brain. Such things as fetal alcohol syndrome or lack of nutrition or nurture could be the source of this condition. *Inmate 5*'s left side was 100, right 55; low frequencies only – left 30, right 9.

Following Brain State Conditioning™ training, his left side was 57, right 65; and low frequencies only – left 8 and right 9. Other indicators in the brain assessment data indicated that *Inmate 5* was much less prone to anger or to need substances to self-medicate in order to feel calm. An indication of *Inmate 5*'s results are in the graph below where the right and left sides are brought into balance and calmed and these findings are consistent with his own experience, the observation of the BST Staff, and the observation of the Warden and his staff.

# L/R High Beta Avgs



#### 5.4. PTSD Evaluation

Items are rated on a 5-point scale ranging from 1 (not at all) to 5 (extremely).

<b>Participant 5 – Table 1-5</b>		
<b>QUESTION</b>	<b>Pre-test score</b>	<b>Post-test score</b>
1. Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?	1	1
2. Repeated, disturbing dreams of a stressful experience from the past?	1	1
3. Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it)?	1	1
4. Feeling very upset when something reminded you of a stressful experience from the past?	1	1
5. Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past?	2	1
6. Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it?	1	1
7. Avoid activities or situations because they remind you of a stressful experience from the past?	1	1
8. Trouble remembering important parts of a stressful experience from the past?	2	1
9. Loss of interest in things that you used to enjoy?	4	2
10. Feeling distant or cut off from other people?	5	2
11. Feeling emotionally numb or being unable to have loving feelings for those close to you?	3	1
12. Feeling as if your future will somehow be cut short?	2	1
13. Trouble falling or staying asleep?	1	1
14. Feeling irritable or having angry outbursts?	4	2
15. Having difficulty concentrating?	4	1
16. Being “super alert” or watchful on guard?	4	3
17. Feeling jumpy or easily startled?	2	1
<b>TOTAL</b>	<b>39</b>	<b>22</b>

#### 5.5. Warden Observations

***Pre-Brain State Conditioning:** “Inmate #5 had a violent temper. He belonged to both a street and prison gang. He was possibly the most difficult inmate at SNCC at one time. Several months ago, he threatened to assault me and members of my staff. He berated us with profanities and made a lot of claims that he was violent and needed to be sent to another facility. As a matter of fact, he was willing to do just about anything to get out of SNCC. Over the past few months, I developed a rapport with him and soon he was working in the culinary. Once I gained his respect, he*

*became complaint and would do as I instructed. He stayed out of trouble at work and generally followed through on his commitments to me. However, he continued to have issues with staff regarding his temper and outbursts albeit to a lesser degree than when I first met him. He is highly intelligent and is able to recite poetry and can compose rhymes instantaneously. Yet, he could not concentrate enough to read a book. He was also manic with periods of excitement and depression. It was hard to know which side you were going to see on any given day.”*

**Post Brain State Conditioning:** *Inmate #5 is doing very well. He is managing to control his temper better than ever. He was faced with a difficult situation with correctional officers this past week and he decided to de-escalate the situation himself. Instead of challenging the officers, he informed them that he would comply with their immediate orders but would take the matter up with me at some point. Staff that dealt with Inmate #5 informed me that they were highly impressed with his demeanor and lack of hostility. Inmate #5 also managed to read an entire book that he checked out from the library.”*

## 6. Non-program compliant Inmate 6.

### 6.1. Inmate stated objectives.

The level of accomplishment is scored from 1=least to 10=most/perfect

Goal #	Goal ID	Pre	Post
Goal 1	Anger management	4	4
Goal 2	Improve sleep	2	7
Goal 3	Sense of calm-mange anxiety	6	6
Goal 4	Increase Attention/Focus	3	9
Goal 5	Memory	1	8
<b>TOTAL</b>		<b>16</b>	<b>34</b>

### 6.2. BST observations

*Inmate 6* did not complete the program. He presented as someone very depressed, very untrusting, and with an exaggerated air of nervousness and unease.

In five sessions *Inmate 6* was more composed, looked more calm, indicated as being less depressed when considering his brain energy, and reported that he had been able to solve some personal problems without rage.

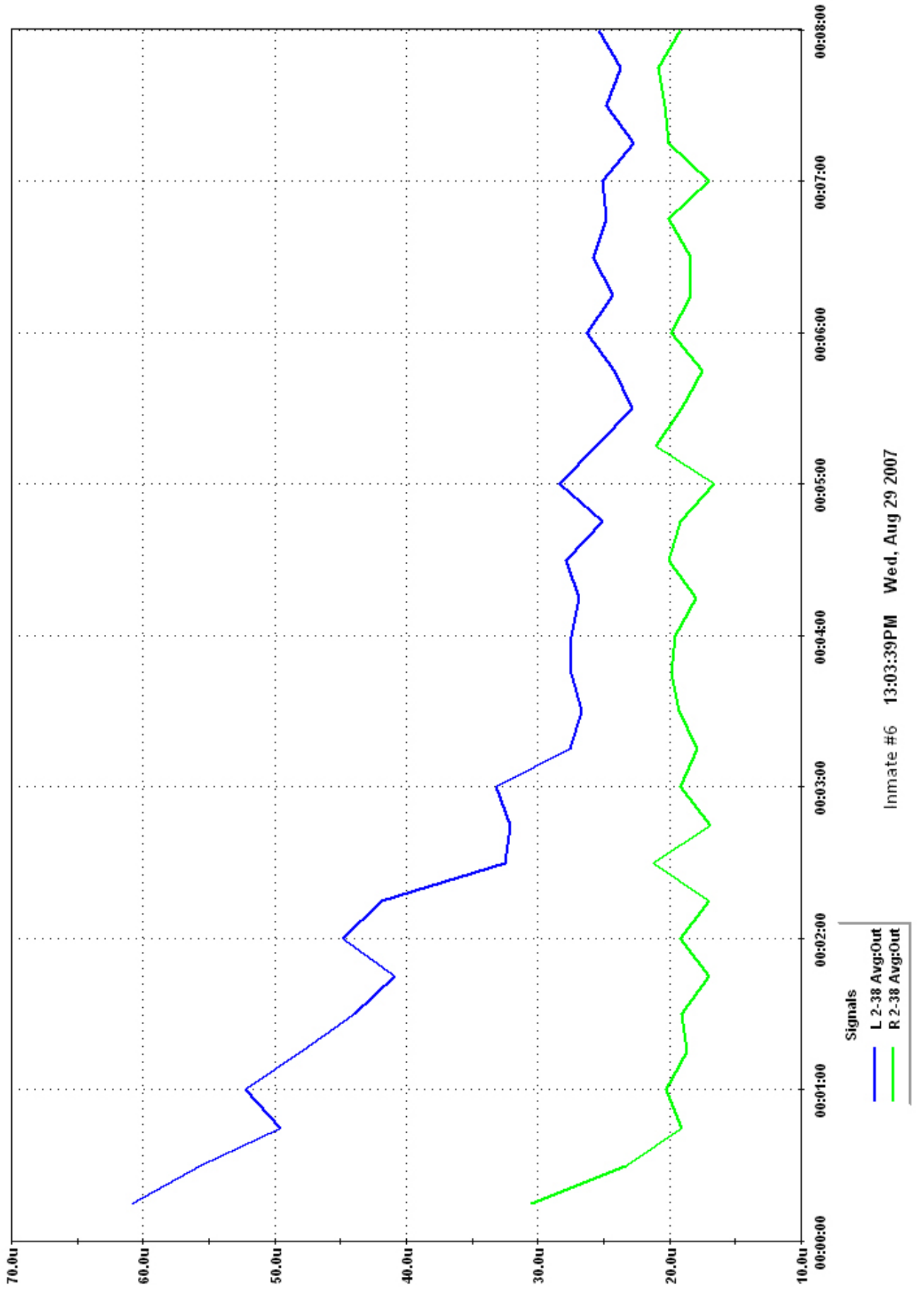
### 6.3. EEG Assessment Data

*Inmate 6* presented an imbalance during his initial assessment indicating an early childhood trauma of isolation/abandonment that evoked a freeze response. The degree

of this imbalance as well as the frequency range which dominated in the unbalanced areas, seemed to indicate that pre-natal or infancy was marked radically for *Inmate 6* by a freeze response pattern in the brain. Such things as fetal alcohol syndrome or lack of nutrition or nurture could be the source of this condition. *Inmate 6*'s left side was 71, right 52; low frequencies only – left 21, right 11.

Following Brain State Conditioning™ training, his left side was seen to be more in balance as is represented on the graph below, however a second assessment on *Inmate 6* was not completed.

# L/R 2-38 Avgs



#### 6.4. PTSD Evaluation

Items are rated on a 5-point scale ranging from 1 (not at all) to 5 (extremely).

<b>Participant 6 – Table 1-6</b>		
<b>QUESTION</b>	<b>Pre-test score</b>	<b>Post-test score</b>
1. Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?	5	3
2. Repeated, disturbing dreams of a stressful experience from the past?	3	3
3. Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it)?	4	1
4. Feeling very upset when something reminded you of a stressful experience from the past?	2	4
5. Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past?	5	1
6. Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it?	5	4
7. Avoid activities or situations because they remind you of a stressful experience from the past?	3	3
8. Trouble remembering important parts of a stressful experience from the past?	1	1
9. Loss of interest in things that you used to enjoy?	5	1
10. Feeling distant or cut off from other people?	5	5
11. Feeling emotionally numb or being unable to have loving feelings for those close to you?	5	1
12. Feeling as if your future will somehow be cut short?	3	1
13. Trouble falling or staying asleep?	4	4
14. Feeling irritable or having angry outbursts?	5	3
15. Having difficulty concentrating?	5	2
16. Being “super alert” or watchful on guard?	5	5
17. Feeling jumpy or easily startled?	5	2
<b>TOTAL</b>	<b>70</b>	<b>44</b>

#### 6.5. Warden Observations

*Inmate 6* did not complete the program.

## RESULTS SUMMARY

### S.1. Inmate stated objectives for the 5 qualified inmates only.

The level of accomplishment is scored from 1=least to 10=most/perfect

Goal #	Goal ID	Pre	Post
Goal 1	Various	18	35
Goal 2	Various	11	40
Goal 3	Various	9	31
Goal 4	Various	18	34
Goal 5	Various	8	37
<b>TOTAL</b>		<b>64</b>	<b>177</b>

Each of the five participants reported a significant improvement in each of their goals which they wanted to achieve. Even greater than the goal scores achieved, was the propensity to previous behaviors of dysfunction which seemed radically changed following the Brain State Conditioning™ process.

### S.2. BST observations

Inmates reported sleeping better, and reportedly were better equipped to deal with anger, disappointment and change. They exhibited more social behavior and a greater outward calm as observed and reported by Corrections and Brain State Technologies staff. All inmates reported an inner calm that allowed them to focus and concentrate resulting in improved comprehension and completion of reading material.

### S.3. EEG Assessment Data

Inmate brainwave assessment data was consistent with their reported experience, observations by BST staff, PTSD evaluations, and observations by the Warden and his staff.

Of note was *Inmate 6* who did not complete the program and reported that there was no change in his anger management. This is consistent with data and assures us that approximately 30 sessions will be required and when given over a longer period of time (recommended over two to three months) will facilitate a continued dominance of neural-nets free of PTSD and associated patterns.

#### S.4. PTSD Evaluation

<b>Table 7 – Summary of all 6 inmates</b>			
<b>Participant</b>	<b>Total Test Score</b>		<b>Total % Change</b>
	Pre-test	Post-test	% Change
Participant 1	52	32	38.5%
Participant 2	43	26	39.5%
Participant 3	38	22	42.1%
Participant 4	52	24	53.8%
Participant 5	39	22	43.6%
Participant 6	70	44	37.1%
<b>TOTAL</b>	<b>294</b>	<b>170</b>	<b>42.2%</b>

<b>Table 8 – Summary eliminating inmate #6</b>			
<b>Participant</b>	<b>Total Test Score</b>		<b>Total % Change</b>
	Pre-test	Post-test	% Change
Participant 1	52	32	38.5%
Participant 2	43	26	39.5%
Participant 3	38	22	42.1%
Participant 4	52	24	53.8%
Participant 5	39	22	43.6%
<b>TOTAL</b>	<b>224</b>	<b>126</b>	<b>43.8%</b>

Each of the six participants reported a significant change in their post traumatic stress levels from pre-demonstration to post-demonstration. The statistical calculations of the responses of the participants in the pre/post test measures demonstrate a significant change in PTSD levels in the expected direction. Their personal reports also indicate that the sessions they received were helpful in alleviating some of their post traumatic stress reactions.

A reduction in PTSD levels at a composite of 224 pre-demonstration and 126 post-demonstration, or over half of all PTSD symptoms being mitigated in a three week period indicates a major shift toward making healthy choices for the inmate participants, and this data is consistent with other data captured for the demonstration evaluation.

### **S.5. Warden Observations**

Warden Varé himself volunteered to participate in the program as a client. Warden Varé's history included abduction by inmates and being stabbed by an inmate. His trauma history was severe which included a history of high blood pressure. Warden Varé's Brain State Conditioning of five sessions went very well and allowed his blood pressure to normalize, his relaxation to increase, and his ability to deal with stressful situations to increase. This is a natural consequence of attaining brain balance – other systems of the body tend to balance as well, and the ability to handle stress with objectivity is greatly increased. Warden Varé writes:

*“On a personal level, I have noticed that I am calmer and not rushed in making decisions. I have only gone through a handful of sessions and could already see the effects. I also noted that my blood pressure dropped 20 points after the sessions. I am looking forward to completing my training in Scottsdale next week and will hopefully see further improvements in my ability to balance my professional and personal life.”*

*In general regarding the inmates, After the Brain State training, I noticed that all the inmate participants appeared to be happier and they were glad to have gone through the process. They appeared to be calm and relaxed.”*

### **References**

Blanchard, E., Jones-Alexander, J., Buckley, C., Forneris, A. (1996). Psychometric properties of the PTSD Checklist (PCL). *Behaviour Research and Therapy*, 34, 669-673.

Weathers, F., Litz, B., Herman, D., Huska, J., & Keane, T. (October 1993). The PTSD Checklist (PCL): Reliability, Validity, and Diagnostic Utility. Paper presented at the Annual Convention of the International Society for Traumatic Stress Studies, San Antonio, TX.