

## **A Method for Painless and Humane Legal Executions**

Dr Ira E Williams

How do the 1999 tragic death of a world-renowned golfer and the recent highly criticized execution of a convicted Ohio inmate provide the clues for offering the most painless and humane method for future legal executions? The US Air Force provides the method, and Dr. Ira Williams, author of Find The Black Box, provides the answer.

The search for humane methods suitable for the legal execution of those deemed to deserve such a fate is relatively new within the history of the world, and largely confined to Western Civilization. But that thus far fruitless search has captured the active interest of countless groups and individuals vigorously championing their cause for, or against, even the use of legal executions. Since all appearances indicate that some states will continue to permit legal executions to continue under carefully restricted guidelines as to who might deserve such a fate, the offer of a painless and humane method for such events will hopefully receive due consideration. And I feel my military aviation, and oral surgical and anesthesiologist experiences fully qualify me to make this offer.

### **The need for such an offer:**

Ohio's latest attempt at legal execution of an inmate in mid-January did not proceed as uneventfully as hoped, and has created future decisions about the use of lethal injection for such executions in Ohio and 31 other states problematic. That most recent execution has been described as long and fitful due to the use of an untested combination of chemicals and has brought cries of cruel and unusual punishment due to what appeared to be less than optimal results. Unfortunately, the normal physiological responses exhibited by that inmate, and also unfortunately witnessed by that inmate's family members have been most likely misinterpreted.

### **The basis for such an offer:**

Hypobaric pressure chambers, as used by the US Air Force for over sixty years, have demonstrated the painless, and depending upon relative altitude when tested by individuals, very rapid loss of consciousness that could also lead to death. Payne Stewart, and all other occupants on his jet plane, peacefully lost consciousness, and rapidly lost their lives due to the failure of that airplane's pressurization system while flying at high altitude. They all had been dead long before their airplane ran out of fuel and crashed into a field in South Dakota on Oct. 25, 1999.

### **My military experiences with hypobaric pressure chambers:**

My first experience was in 1953 as an aviation cadet at Harlingen AFB, Texas. Additional pressure chamber training took place as a member of;

Jun. 10, 1961, Little Rock AFB, AK, member, 702<sup>nd</sup> Troop Carrier Squadron (Assault).

Jun. 6, 1964, Chanute AFB, ILL, member 128<sup>th</sup> Air Refueling Group WI ANG (TAC).

Apr. 2, 1966, McDill AFB, FL, same unit as above. (Documentation for above available)

But the first pressure chamber experience was by far the most enlightening personally. A flight of sixteen cadets and two inside chamber observers entered the chamber and began to breathe 100% oxygen in order to purge nitrogen from our bodies and thereby minimize the likelihood of getting the bends caused by nitrogen bubbles getting into our joints, etc. Vacuum pumps then began to remove air from the chamber to create a low atmospheric pressure comparable to various altitudes. At the 20,000 ft. level the flight of cadets was divided into pairs. First one cadet would remove his oxygen mask, and his partner would observe his movements and reactions because everyone has different levels of tolerance and different reaction times involving the effects of hypoxia on our bodies. The time lapse for individuals to show signs of hypoxia at 20,000 ft. varies greatly in individuals, but that time period decreases dramatically as the atmospheric pressure is lowered to simulate higher altitudes.

I was chosen to be the cadet to be disconnected from my source of oxygen at 30,000 ft., and I remember the event well to this day. I was given a deck of cards and was told to begin to separate the cards into two stacks by color as soon as my oxygen source was disconnected. I was told that I exhibited clear signs of hypoxia when I made multiple attempts to drop the 50<sup>th</sup> card, but without releasing it. My Time of Useful Consciousness at that relative altitude was slightly less than 60 seconds.

As soon as my oxygen source was reconnected I instantly had a feeling of euphoria, and thought, "I'll show them that I can go far beyond the normal duration at this altitude." And I began to reshuffle the deck of cards to continue my demonstration. That ended when the other laughing cadets pointed to my reconnected oxygen hose. However, not all chamber subjects react in the peaceful manner that I did, and most others do. Chamber observers must be on their guard because a very few subjects, when reconnected to their oxygen source react in a very violent manner, even seeking to strike the closest observer with their fist, and in rare occasions successfully. I was told that there was thought to be some correlation between such a violent response, and in those who often become "mean drunks". I leave it to others to pursue greater understanding of that possibility.

### **The significant variation between individual responses below 30,000 feet:**

Sir Edmund Percival Hillary and Tenzing Norgay were the first two climbers to successfully reach the summit of Mount Everest and return safely. They accomplished that feat on May 29, 1953 by using supplemental oxygen, and could only remain at the summit about 15 minutes because their oxygen supplies were running low. Since their 1953 success some have reached the Mount Everest summit without the support of supplemental oxygen, but others have paid the ultimate price with their lives while trying to do so, and still others have suffered significant damage to their health. People living at, or near sea level can experience some of the effects due to decreased atmospheric pressure resulting in less than normal oxygenation by simply visiting the Mile-High City of Denver. But altitudes above 30,000 ft. result in a dramatic reduction in Time of Useful Consciousness that can only be measured in a few seconds. There is enough oxygen in the atmosphere to sustain life even at 40,000 ft., but there is insufficient atmospheric

pressure to help the lungs inhale sufficient air containing that oxygen to sustain life without some form of mechanical support.

**Two examples:**

Payne Stewart, his two pilots, and three friends leveled off at 37,000 ft., and the pilots set the autopilot. All occupants of that airplane rapidly and peacefully fell asleep probably in less than one minute after the plane's pressurization system failed, and all became brain dead, and suffered cardiac arrest minutes later. Their plane would continue to fly straight and level for four more hours until the fuel was exhausted.

SR-71 (Blackbird), and U-2 pilots face an additional danger known as the "Armstrong Line". Above 63,000 ft., and without a pressurized cabin, or pressure suit, the atmospheric pressure at that altitude, or the lack thereof, allows the gasses in fluids to escape from those fluids without the aid of an increase in temperature. The body's various fluids like blood, sinuses, etc. literally boil.

The 17<sup>th</sup> Bomb Wing, including its three combat squadrons, redeployed from Japan to Hurlbert AFB, Elgin #9 in the Panhandle of Florida in early 1955. That summer those units transitioned into B-57 medium jet bombers, and the aircrews began to fly routinely at 50,000 ft. while wearing summer flying suits, and relying on ejection seats in case of emergency. Our communication and oxygen lines were secured on the side of those ejection seats by securing two quick-disconnect plates together. It became important for the two crew members to stay in close contact with one another in order to determine if the other person began to show signs of hypoxia by slurred speech, etc., should those two plates on the side of the ejection seat not be fastened tightly.

Billy Graham was asked by Larry King if he feared dying? Billy Graham replied, "I don't fear the result, but I do fear the event." Flying at 50,000 ft. while hoping that those two plates were securely fastened assured me that the most peaceful and painless means of death would be due to that experienced by Payne Stewart, and his fellow companions. There is no struggle to breathe or panic due to lack of oxygen. One just peaceably goes to sleep.

**The Ohio inmate's family concerns regarding "gasping and snorting":**

I performed 35 autopsies during my 6-month rotation on Pathology during my surgical residency, and therefore was accustomed to dealing with the deceased. However, I have had only one experience with attending to a person as they proceeded from unconsciousness, to brain dead, and shortly thereafter to cardiac arrest and death. That event allowed me to witness, and understand the process that Ohio inmate's family members viewed as catastrophic struggles.

An immediate family member breathed their last in a hospital bed supplied by Hospice in our home several decades ago. That person expired peacefully while surrounded by loved ones, and with a sequence of events highly similar to those one would experience at high altitude with insufficient oxygen, but those sequences of events relate directly to what that inmate's family members witnessed, and misinterpreted.

That family member first became comatose, and without evidence of pain. Shortly thereafter a state of brain death could be assumed by spreading the eyelids apart, and seeing a fully dilated pupil that was unresponsive to light. Yet, by using a stethoscope, I was able to hear the strong and rhythmic beating of their heart. This period of time between brain death and full cardiac arrest is while the human physiology seems to play tricks on the uninformed.

Carotid bodies are chemical sensors located in the Carotid Artery Bulb located at where that artery becomes bifurcated into the Internal and External Carotid Arteries supplying the brain and face. Carotid bodies signal the lungs when the level of CO<sub>2</sub> becomes significantly elevated, triggering the lungs to exhale. The primary function of the lungs is to remove CO<sub>2</sub>, and the other half of the normal lung cycle is to inhale air containing oxygen. Thus the old saying that it is impossible for someone to hold their breathe until they die because the carotid bodies would initiate a respiratory cycle even if the person was unconscious.

Because complete cardiac arrest did not occur until several minutes after pupil dilatation that person's heart continued to circulate un-oxygenated blood through the vascular system, while the carotid bodies continued to stimulate the lungs to continue to exhale the ever-increasing levels of CO<sub>2</sub> in the form of delayed gasps. The pause between lung exhalations tended to increase the dramatic effect of that person's last physiological efforts until all bodily functions ceased.

Hypobaric chambers constructed for one individual can easily provide a painless, and humane method for legal executions while eliminating the need for drugs, bullets, high voltage electricity, or a very sharp blade dropped from a sufficient height. In contrast, Virginia recently announced efforts to increase the use of their electric chair.

This offer for consideration is made with the best of intentions.

Links to supporting documents referenced for the above:

<a href="http://is.gd/bpIulH">http://is.gd/bpIulH</a>	Payne Stewart – Oct. 1999
<a href="http://is.gd/xNmMp9">http://is.gd/xNmMp9</a>	Altitude Chamber (Hypobaric) Training
<a href="http://is.gd/3hv0wU">http://is.gd/3hv0wU</a>	Respiratory System
<a href="http://is.gd/HUQv9N">http://is.gd/HUQv9N</a>	Ohio execution. Jan. 16, 2014
<a href="http://is.gd/RkBb2p">http://is.gd/RkBb2p</a>	Carotid and Aortic Bodies
<a href="http://is.gd/pDZeC5">http://is.gd/pDZeC5</a>	Virginia moves to allow use of electric chair. Jan. 23, 2014.

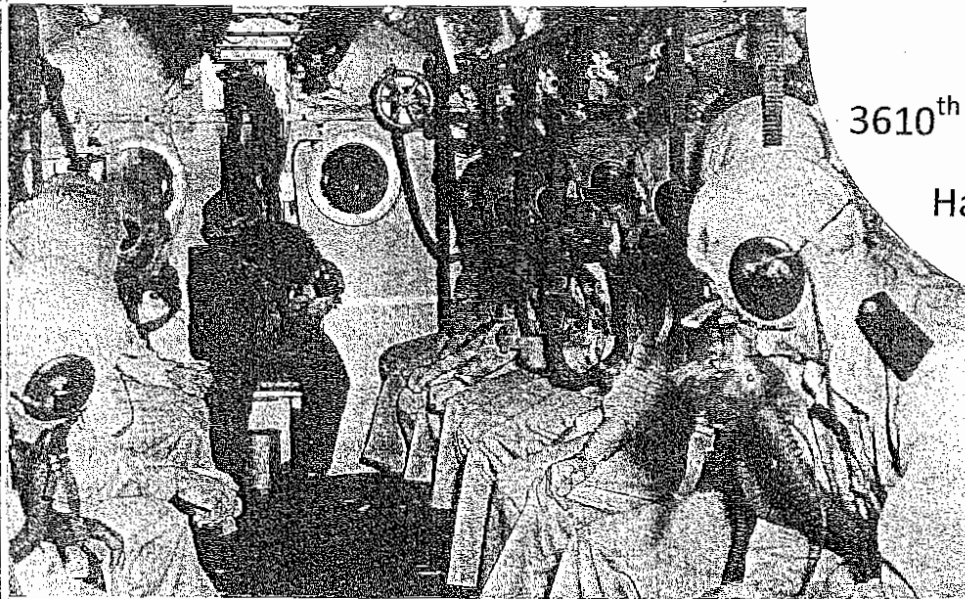
Nest page contains historical documentation

**II VISUAL PHYSIOLOGICAL TRAINING / ORD**

*(For officers this record will be kept as a permanent part of the AF Form 5 file.  
For airmen this record will be kept as a permanent part of the 201 file.)*

LAST NAME - FIRST NAME - MIDDLE INITIAL			GRADE	SERVICE NUMBER
Williams, Ira E.			MAJOR	FG 103033693
TYPE OF TRAINING	PERCENT GRADE	AIR FORCE BASE	DATE	SIGNATURE OF TRAINING OFFICER
ORIGINAL PHASE				
REFRESHER PHASE	82	Little Rock AFB	10 Jun 61	<i>Ira E. Williams</i> CAPT. USAF (MSC)
PASSENGER PHASE				
Refresher Trng	92	Chamute AFB, Ill	6 Jun 64	<i>John C. Carson III</i> JOHN C. CARSON III Capt USAF Physiological Trng Off
Refresher Phase	Satif	MacDill AFB, Fla	2Apr66	<i>Alexander E. Fallon</i> ALEXANDER E. FALLON, CAPT, BSC, USAF
NIGHT VISION TRAINER				
EJECTION SEAT TRAINER				
PARTIAL PRESSURE SUIT				
MISCELLANEOUS				
Rapid Decompression		Little Rock AFB	10 Jun 61	<i>Ira E. Williams</i> CAPT. USAF (MSC)
RAPID DECOMPRESSION		MacDill AFB, Fla	2Apr66	<i>Alexander E. Fallon</i> ALEXANDER E. FALLON, CAPT, BSC, USAF

REMARKS



Class 54-03

3610<sup>th</sup> Observer Training Wing

Harlingen AFB, Texas