



UNITED STATES OF AMERICA

VS.

ALFRED W. TRENKLER

FORENSIC ANALYSIS OF PHYSICAL EVIDENCE

REPORT OF

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## UNITED STATES VS. ALFRED W. TRENKLER

This document sets forth the results of analysis of forensic evidence specifically related to the bombing incident in the captioned trial. This analysis includes my personal examination, on March 10, 1993 and June 2, 1993, at the Boston BATF office, of items recovered at the scene of the bombing and evidentiary items recovered incidental to the follow up investigation conducted by the Bureau of Alcohol, Tobacco, and Firearms (BATF) and the Boston Police Department (BPD); reviews of BATF Laboratory reports, BATF Explosives Technology Branch report, and investigative reports from BATF and BPD.

### GENERAL COMMENTS:

On October 28, 1991 at approximately 11:55 AM, the Boston Police Bomb Squad responded to 39 East Bourne Street, Roslindale, Massachusetts in reference to a complaint from Thomas A. Shay, Sr. regarding a suspicious box with magnets and protruding wires, which Shay stated had fallen off the undercarriage of his car.

Police Officers Frank Foley and Gerry Hurley of the Boston Police Bomb Squad were in the process of examining the suspect box when it exploded. Officer Hurley was killed and Officer Foley was seriously injured.

The BATF Northeast Regional Response Team and the Boston Police Department jointly conducted the initial on-site post blast investigation, as well as, the subsequent search and seizure investigations. Physical evidence collected incidental to this investigation was submitted to and examined by the BATF National Laboratory in Rockville, Maryland.

This investigation resulted in the indictment and subsequent arrests of Thomas A. Shay, Jr. and Alfred W. Trenkler.

The following sets forth a summary of results of examinations provided by BATF and my comments:

## IMPROVISED EXPLOSIVE DEVICE

### BATF:

(From BATF Laboratory Report of Cynthia Wallace, Forensic Chemist, Dated June 9, 1992)

The improvised explosive device (IED) consisted of a wooden box, magnets, radio control components, a switch, two detonators, dynamite, tape and paint.

(From BATF Report of Thomas H. Waskom, Explosives Enforcement Officer, dated January 15, 1993)

The improvised explosive device (IED) was constructed using a quantity of dynamite, two electric detonators, a fuzing system and a firing system. The fuzing system was a "Futaba" remote control set, and the firing system was a toggle switch, 9 volt batteries, and two detonators connected together by electrical conductor. This entire assemblage was concealed in a plywood box, with magnets glued to the outside of the plywood box.

The IED was designed to be placed on a metal surface by the magnets. The IED would function after the radio receiver unit was turned on, and when the intended victim was in the proper location, sending the radio signal from the transmitter to the receiver causing the fuzing system and the firing system to function. This action initiates the explosive material, causing the device to explode.

### DLK:

The items recovered and identified by BATF are consistent with a concealed radio controlled IED. Their conclusions regarding reconstruction, the fuzing and firing systems are logical. It is noted that BATF concludes the toggle switch was part of the firing system, and functioned as the "**trigger**," and not as an arming switch.

BATF states the IED would function when the radio signal was sent by the **transmitter** to the receiver. Noticeable by its absence from all the items recovered during BATF and BPD searches is a **transmitter** or compatible radio signal sending unit.

Explosive residue was detected on a fragment from a magazine page covered with tape. This suggests the explosive charge was wrapped/concealed with the page(s) from a magazine and secured with layers of tape.

No opinion has been formally issued regarding how or why the IED exploded.

It is not known if the IED functioned as designed, by the command transmission of a radio signal, or originated from stray electrical current, or as a result of a failed render safe procedure.

It should be noted that this report does not offer an opinion as to how the bomb exploded. Any conclusions would be speculative at best, and can't be conclusively supported by available information or physical evidence.

**Individual components of the IED are described in detail hereafter:**

### **EXPLOSIVE MAIN CHARGE**

#### **BATF:**

Material recovered from the scene of the explosion was analyzed and identified as ammonia dynamite. However, the hand printed notes state the brand and type is unknown. These notes also state the IED used 2 or 3 sticks.

BATF investigative report submitted by Jeff S. Kerr states the IED contained 3-4 sticks of dynamite.

Instructions for the search advise that components of dynamite leave a characteristic residue which is easily recovered from any surface where the dynamite has been handled or stored. The residue can remain for months and can be detected at extremely low concentrations.

#### **DLK:**

The sensitizer in all commercial dynamite is nitroglycerine (NG) or ethylene glycol dinitrate (EGDN). One of these two sensitizers must be identifiably present in the residue for the Laboratory to positively conclude the explosive present in the IED was dynamite. The presence of NG or EGDN was not mentioned in BATF Laboratory report. It is probable that these ingredients were detected, but simply omitted from the report. The omission of complete instrumental analysis findings for field reports is not an unusual BATF Laboratory procedure, but proper documentation should be made available to verify the conclusions.

Following the explosion, the hands of Thomas Shay, Sr. were swabbed and later examined for the presence of explosive residues with negative results. These results do not disprove Shay Sr.'s story or indicate that he did not make the bomb. First, the outside of the container may not have been contaminated, and secondly, it is possible to remove residue from the hands with an appropriate cleansing agent.

It is generally accepted that dynamite is easily detected, and as such, can be transferred upon contact or in the open with other surfaces. A significant consideration in this case, regarding the identification of dynamite, is the possibility of contamination of the exploded evidence. Bomb technicians frequently come into contact with explosives during the course of their duties and training. If the clothes and tools of the bomb technician are exposed to explosives, especially dynamite, they will become contaminated. It is therefore, possible, if the two bomb technicians' clothes and/or tools were analyzed for the presence of explosives, a positive identification could have resulted from contamination from a source other than the IED.

Reference is made to the number of "sticks of dynamite" used in the IED, from 2 to 4. The basis for this estimate has not been stated in the available documents. One can only assume the BATF estimate was based on the size of the container and the resulting explosive damage. It is noted that a standard cartridge (stick) of dynamite measures 8" in length and 1 1/4" in diameter. However, dynamite cartridges vary in sizes from 4 inches to 6 feet in length and in diameters from 7/8 inch to 10 1/4 inches. There is also a variation in the strength of different types of dynamite from as low as 3,700 ft/per/sec to 19,600 ft/per/sec detonation velocities. Based on these variables, it is not possible to positively state the number of "sticks" of dynamite used in the construction of the bomb.

It is also noted that estimation of the amount of explosive through observation and measurement of the explosive damage is speculative, at best. Several factors, including placement of the explosive, strength of the container, distances, detonation velocity, and density of the explosive material will have an effect on the damage produced by an explosion. None of these factors are identified in the BATF documentation regarding their conclusions about the number of "sticks" of dynamite used in the IED.

According to BATF documentation, all of Trenkler's known habitats were searched for the presence of explosives, especially dynamite. These habitats included his place of residence; his parents' residence; the detached garage at his parents' residence, identified as a storage and workshop; his place of business; a work site; and his personally owned automobile. These searches met with negative results for the presence of dynamite, or any other explosives.

On January 31, 1992, the detached garage of Trenkler's parents, 7 Whitelawn Avenue, Milton, Massachusetts was searched by John Hobbs, Ph.D. analytical chemist, who took air samples and processed these samples for explosive residue, again with negative results.

On October 31, 1991, a BPD Bomb Dog searched Shay Sr.'s 1983 Buick for the presence of explosives with negative results. This was the vehicle on which Shay Sr. stated the IED was attached.

The type of instrument(s) and analytical methods used by BATF and Dr. Hobbs have not been identified. This information could be of value in evaluating the credibility of the instrumental detection of explosives.

A review of investigative reports revealed that the garage at 7 Whitelawn, Milton, Massachusetts and Trenkler's 1978 Toyota were the only two areas searched with instrumental detection equipment.

On-site inspection for the presence of explosives at other locations, which should have been considered, but were not included, are:

- The 1990 Mazda Shay Sr. was repairing and seen driving the day of the explosion
- Rolling Wrench Garage where Shay Sr. was reportedly working on the Rotman car
- The Rotman car, which Shay Sr. had until October 25, 1991
- Dedham Service Center
- Personal habitats of Giammarco and Berry, who are being sued by Shay Sr.
- The known habitats of Shay Jr.

## ELECTRIC DETONATORS

### BATF:

Fragments of two Austin Rock\*Star No. 6 delay electric detonators were recovered. The base end of the shell from one of the detonators, recovered at the scene of the explosion, bears the indented stamp "6". The detonator had an aluminum shell with red and yellow 23 gage copper leg wires.

### DLK:

The identification of the detonators is accurate.

Personal examination of the detonator remains reveals typical damage from the explosion of a delay type detonator. However, the amount of the detonator remains and the presence of the base from one of the detonators is unusual if both detonators were properly primed (inserted) into the explosive main charge.

Present among the exploded remains are two yellow leg wires, twist connected and secured with a white plastic tape. This connection of the leg wires suggests the detonators were wired in a series circuit.

The method of using two detonators to prime the main charge is not unique, but could be of investigative assistance.

For information, Austin Rock\*Star No. 6 Delay electric detonators manufactured with red and yellow leg wires come in varying lengths from 8 feet to 80 feet. They are packaged with a delay tag on the leg wires, a paper wrap to hold the leg wires together, a shunt, and the detonators with 8' length wires come 500 per case.

The original length of the leg wires used in the IED was not identified. It is logical to assume that the leg wires were cut to a shorter length before wiring into the firing circuit. It is also obvious that the wire bundle wrap, shunt, and probably the delay tag were also removed before placing the detonators in the IED. This is evidenced by the absence of these items being recovered at the crime scene.

It is noted that **no** Austin Rock\*Star detonators, shunts, delay tags, wire bundle wraps, or red and yellow leg wire remnants were recovered during the searches of Trenkler's habitats.

## FUZING / FIRING SYSTEM

### BATF:

Futaba radio control components were recovered at the scene and identified as part of the IED fuzing system. These components include the receiver, servo, servo horn, battery pack, and slide switch. A partial FCC ID code was recovered and indicates the receiver operated at 72 MHz, a frequency range reserved for radio aircraft only.

The Futaba receiver and slide switch have been identified as being obsolete.

Two switch contacts were recovered and identified as having originated from a Radio Shack Single-Pole-Single-Throw toggle switch, Catalogue No. 275-602.

Reconstruction of the wood box container and the radio control components places the servo motor and servo horn adjacent to the toggle switch. This suggests that the movement of the servo horn will trip (turn on) the toggle switch, which allows electrical current flow to initiate the detonators and cause the IED to explode.

### DLK

The identification, reconstruction, and conclusions regarding the fuzing system are logical. Further, IED's that utilize radio control fuzing systems, like the Futaba components, are commonly arranged like the IED in this case.

In order to reliably fire (function the fuzing and firing system), given adequate power sources and working components, the bomb maker must have a transmitter, which operates on the same 72 MHz frequency as the receiver. It is noted that different frequency chips may be separately purchased and radio control systems can be altered, simply by changing the frequency chips in both the transmitter and the receiver.

In the absence of any identifiable radio frequency chips, it is not possible to positively state at what operating frequency the radio control was operating.

No transmitter was located at any of Trenkler's habitats, nor were any documents, i.e., instructional material, catalogues, or spare parts that suggest that Trenkler ever had possession of a Futaba radio control system.

No packaging remains or receipt for purchase of a Radio Shack Single-Pole-Single-Throw Toggle Switch was located in the possession of Trenkler.



## WIRE

### BATF:

Four different types of wire have been recovered and identified as being associated with the IED circuitry. These do not include the red and yellow detonator leg wires.

Three types of wire recovered were analyzed as originating from the Futaba components, battery snap connector lead wires, and a white antenna wire, which had been painted black. The fourth type of wire was described as having red insulation, multistrand and a larger gage, but could not be associated with the other IED components.

The lengths of wire (Submissions 1 and 4) were examined microscopically for the presence of comparable Toolmarks. and compared with tools (Submission 6) seized during the searches with negative results.

### DLK:

No Toolmarks of value were identified on the wires recovered from the IED.

Individual tools, taken from Trenkler were examined for wire and wire insulation residue with negative results.

BATF recovered numerous wires and wire scraps from Trenkler's habitats. but none of those recovered wires were identical to the wires recovered from the IED.

## BATTERIES

### BATF:

Fragments from at least five (5) Duracell 9 volt batteries were recovered. Four of the battery fragments revealed the freshness code, "JUL 94." Snap connections from the 9 volt batteries were found attached to the remains of battery snap connectors. Also recovered at the scene of the bombing were the remains of four (4) Duracell AA size batteries. Three of these "AA" batteries bear freshness code, "JUL 94."

An adhesive substance was present on the sides of the 9 volt batteries and suggest they were glued together and/or affixed to the side of the wood container.

Four AA size batteries were recovered from Trenkler's habitats. Two from the garage at 7 Whitelawn Ave., Milton, Mass., which bear freshness code, "JAN 96", and two from the apartment at 133 Atlantic Street, Quincy, Mass, which bear freshness codes "JAN 96" and "JAN 93."

### DLK:

The presence of five 9 volt batteries is not common to previously encountered radio control IED's. Only one 9 volt battery is required to initiate the two detonators, if wired in a single series circuit. Hypothetically, the use of multiple batteries suggests the probability of a dual firing system.

None of the 9 volt or AA batteries recovered from the Trenkler searches bear the same freshness code, "JUL 94", which was recovered from the IED.

None of the battery contacts exhibit the presence of solder. In fact, battery fragments recovered from the scene by BATF reveal the remains of battery snap connectors still attached to some of the batteries. This would indicate that battery snap connections were used to connect the power source into the electrical circuits.

## SOLDER

### BATF:

The BATF Laboratory report makes **no** mention of solder being used in the construction of the exploded IED.

### DLK:

During the physical examination of physical evidence at Boston on two dates, March 10, and June 2, 1993, I observed the presence of solder on the metal fragment identified by BATF as one of the contacts from a Radio Shack toggle switch. This solder could be suitable for comparison with a known source.

No solder was recovered or taken during the subsequent searches following the crime scene, therefore no comparison examinations were conducted.

During personal examination of the evidence on March 10 and June 2, 1993 at the BATF, Boston office no solder was present on the wires I was provided. This suggests the wire to wire connections were made by twisting together the bare ends.

**CONTAINER  
(WOOD, NAILS, ADHESIVES)**

**BATF:**

The IED was contained in a homemade plywood box. The plywood was constructed with three layers, all of which were hardwood, and two veneers were consistent with oak. The plywood was 1/4 inch thick. There was a larger box with a smaller box attached to one side. The larger box was originally approximately 1 3/4 inches thick and at least 6 1/2 inches long. The width of the larger box was not mentioned. The smaller box measured 2 5/8" X 2 5/8" X 1 1/4"

Shay, Sr. described the box as the size of a 1 pound Stovers candy box.

The plywood box was assembled with two penny nails, and secured with cyanoacrylate (super glue) adhesive.

Nails submitted to BATF Laboratory (Submissions 3 and 4) have manufacturing marks of possible value to identify them to nails manufactured on the same machine.

**DLK:**

No wood fragments recovered during BATF and BPD searches, including searches of Trenkler's habitats were like the plywood used to construct the IED.

No two penny nails were recovered from the habitats of Trenkler.

Recovered in Trenkler's possession during the BATF/BPD searches was "Super Glue" and "Crazy Glue", which are both cyanoacrylate type adhesives. This type of adhesive is class type evidence and cannot be identified as having originated from a specific source. Additionally, "Super Glue" and "Crazy Glue" are common to every household, and should not be considered unique for identification purposes.

## PAIN

### BATF:

Black acrylic paint covered the outside of the plywood box.

A piece of plywood recovered from Thomas Shay, Sr. exhibits a black paint over a gray paint.

Smears of acrylic based black paint were present on the clothes recovered from Thomas Shay, Sr.

All of the black paints recovered by BATF during their searches were instrumentally compared with the paint from the bomb container, and there were no matching identifications.

### DLK:

The piece of plywood board with the black paint over the gray paint taken from Shay, Sr. exhibited an area void of paint. This suggests something was placed on the plywood when it was spray painted. The unpainted area represents the same approximate size and shape of the IED container. This may merely be a coincidence for which Say, Sr. has an explanation.

Examination of photographs taken during the search of Shay, Sr.'s residence revealed the presence of a wooden paint stir stick. Adhering to this paint stir stick is a black colored paint. This item was not present at the BATF Boston office on March 10, and is not mentioned in the BATF Laboratory report. This item should be recovered and submitted to the Laboratory for instrumental analysis and comparison with the paint from the IED container.

## INK

### BATF:

Blue ink lines appear on some of the edges of wood from the plywood container, which appear to represent a template drawn before the wood was cut.

### DLK:

Eleven blue ink pens were recovered from 133 Atlantic Street, Quincy, Mass., an apartment occupied by Trenkler and John Cates.

No comment is made in the BATF Laboratory report regarding a comparison between the ink lines from the plywood container and the eleven blue ink pens taken from Trenkler. Either a comparative examination was not made or the results were negative.

It is noted that ink examinations can identify the type of ink and the manufacturer. However, ink identifications remain class type evidence and do not provide information that a specimen of ink originated from a specific pen.

## MAGNETS

### BATF:

Two types of magnets were attached to the outside of the bomb container with an adhesive. These magnets were identified as ring magnets and button magnets.

Fragments of twelve button magnets were recovered. Ten were painted red and two were painted blue, and can be ordered in these colors from the manufacturer. Button magnets are used with inclinometers, and are common to automotive repair work.

Fragments from at least one strontium-ferrite ceramic ring magnet were also recovered. This magnet measured 3.65 inches outside diameter, 0.79 inches inside ring, and 0.60 inches thickness. This type of magnet is used in antennas, speakers and small motors.

Recovered from the Apartment at 133 Atlantic Street, Quincy, Mass. was a miniature speaker containing magnet and wires.

Material removed from scratches on the undercarriage of the Black Buick Century, owned by Thomas Shay, Sr. was identified as being consistent with the appearance and composition from the button magnets and ring magnet found among the bomb debris.

### DLK:

Scratches observed on the undercarriage of the Shay, Sr. Buick, and material removed from those scratches identifiable with the magnets on the bomb, suggest the IED was at one time attached to the bottom of the car and forcibly removed. A review of crime scene photographs also reveal scratch marks on the driveway and in the grass, where Shay advised the IED was knocked from the car. However, BATF documentation indicates no samples or materials were recovered from the driveway and analyzed for the presence of magnet particles, wood particles, or paint residue.

The miniature speaker recovered from Trenkler was an intact speaker with the magnet still attached. Additionally, the magnet still attached to the speaker was a different size than the ceramic ring type magnet used in the IED.

It is noted that no button magnets or ceramic ring magnets, like those recovered from the IED, were found as a result of the Trenkler searches.

## TAPE

### BATF:

Silver duct tape and black electrical tape were recovered from the exploded IED. The silver duct tape was adhering to fragments of paper and covered with at least six (6) layers of the black electrical tape.

The silver duct tape exhibits an original width of at least 1 9/16 inches.

The black electrical tape has a nominal width of 3/4 inches, and is consistent in physical characteristics and composition with Scotch brand tapes.

White plastic tape, measuring at least 0.67 inches in width, was adhering to the twist connection of the detonator leg wires.

Exhibit 6-50 contains a Tuck brand silver duct tape, 3 inches wide, and was consistent in construction and composition to the duct tape recovered from the IED. A 15' 3" length of this tape had been torn lengthwise at a width of approximately 1 7/8 inches, and removed from the roll. This duct tape was removed from the Trenkler garage, at 7 Whitelawn, Milton, Mass.

Exhibit 7-60B contains a roll of 3M black electrical tape and dispenser, having a nominal width of 3/4 inches. The tape dispenser had an angled cutting edge which was different from the intact edges on some of the tape fragments from the device. The backing and adhesive of this tape was analyzed and found to have the same composition as the tape from the device. The tape from 60B and the device appear to be the same manufacturer's product type, but could not be more closely associated.

Exhibit 7-60A contains an unknown brand of black electrical tape which was different from the tape used in the device.

Exhibit 10-64 contained four pieces of black electrical tape from Trenkler's job site at the First Christian Science Building. Two of the four black tape pieces were 3M brand with backing and adhesive of the same composition as the black electrical tape from the device, but those tapes could not be more closely associated.



**DLK:**

Tape examinations should include an instrumental analysis of the plastic backing and adhesive (composition), the microscopic examination of the surface impressions imparted on the tape during the calendaring process (physical characteristics), and matching the fractured /torn edges of tape from the device with tape recovered from known sources.

Instrumental analysis of the tape backing and adhesive is class evidence, and can only provide that a tape is similar, possibly originating from the same manufacturer. Scotch 3M brand black electrical tape is most common and found in most households.

Microscopic analysis of the surface impressions of plastic tape can reveal that the tape was processed on the same machine during the same period of time, which strengthens the assumption that two separate tapes may have originated from the same source and possibly the same roll, although this is still class characteristic evidence.

A fracture match between two cut/torn free ends of tape is a positive identification that the two separate tapes originated from the same source.

Based on BATF Laboratory reports and notes, it appears that instrumental analysis (composition) comparisons were conducted and fracture match comparisons were made for the dispenser cuts of tape only. However, there is no reference in the BATF Laboratory reports that provides the results of additional fracture match tape end comparisons, or speaks of the microscopic analysis of surface identification similarities or dissimilarities.

On June 2, 1993 at the BATF Boston Office I microscopically examined the surface impressions on the tape recovered from the device, identified by BATF as consistent with Scotch 3M brand tape, the black electrical tape from Exhibit 7-60B, and the black electrical tape from Exhibit 10-64, which BATF stated all had the same adhesive and backing composition.

**The tapes from the device exhibited different surface characteristics from those recovered from Trenkler searches.** This finding reveals that even though BATF identifies the tapes as Scotch 3M brand, the same manufacturer and brand, the tapes could **not** have originated from the same source.

Simply stated, the black plastic tape used to make the bomb did **not** come from the partial rolls of tape that BATF took from Trenkler.

The silver duct tape , Exhibit 6-50, a 3 inch wide Tuck brand , recovered from Trenkler was reported by BATF also to be similar duct tape found from the bomb. Special note is made by BATF of the 15' 3" of tape that has been torn lengthwise. The width of this torn tape and the width of the torn tape from the bomb exceed 3 inches and therefore did not originate from the torn piece recovered from Trenkler.

## **FINGERPRINTS**

### **BATF/BPD:**

The 1986 black Buick, Massachusetts registration 125-LLO, owned by Thomas Shay, Sr. was examined for latent fingerprints using the cyanoacrylate fuming method. A total of seventeen(17) lifts were taken.

### **DLK:**

There is no BATF/BPD documentation which refers to the identification of anyone as the source of the fingerprints from the 1986 black Buick.

Further, no reference is made in the BATF Laboratory reports that items recovered from the device were examined for latent fingerprints. It is noted that the six layers of black plastic tape recovered from the IED have not been separated, and there is no visible indication on the remains of the detonators, paper, tape, or other remaining components that they were processed for fingerprints.

## TOOLMARKS

### BATF:

The lengths of wire (Submission 1 and 4), recovered from the device, were examined microscopically for the presence of comparable Toolmarks and compared to seven tools (Submission 6), recovered from Trenkler, with negative results.

## MISCELLANEOUS

Fragments from a magazine were recovered in the bomb debris. The source of this was identified as page 25/26 from July, 1991 issue of Muscle Mag International.

Exhibits 70 and 72 are vacuum sweepings from Trenkler's business and apartment. No trace evidence identifiable with materials used in the construction of the IED was found.

### DLK:

No copies of Muscle Mag International or the copy with missing page 25/26 was located in the habitats of Trenkler.

It is also noted that BATF Laboratory reports make no mention of the presence of identifiable hairs or fibers present among the bomb evidence, which were visibly present on some of the tape fragments examined at the BATF Boston office on March 10 and June 2, 1993.

## SUMMARY

The recovery of physical evidence from a post blast investigation is critical to the identification of bomb components, reconstruction of the exploded bomb, and identification of unique methods in assembling the bomb by the bomb maker. The detailed analysis of all physical evidence associated with the exploded bomb can provide invaluable information that can assist with investigative leads and help to establish the identity of the bomb maker.

The following sets forth a summary of information which provides an evaluation of the physical evidence recovered from the exploded bomb in this case, and items collected by BATF from Trenkler, for purposes of forensic inter comparisons. These forensic inter comparisons reveal no association between Trenkler and the making of the IED and are identified hereafter:

- No explosives were found in the possession of Trenkler, nor was there any indication Trenkler ever had any explosives. This particularly includes "dynamite", identified by BATF Forensic Chemist, Cynthia Wallace, as the main explosive charge, and which according to Wallace, "can be easily recovered from any surface where dynamite was handled or stored. The residue can remain for months and can be detected at extremely low concentrations."
- No plywood like that used to construct the bomb container
- No paint like that used to paint the bomb container
- No similar two penny nails which were used to assemble the bomb container
- No tools were identified as having cut the wires or used to construct the bomb
- No wires like those used in the bomb's electrical circuit
- No solder identification
- No Muscle Mag International copies
- No transmitter or compatible sending unit with which to initiate the bomb
- No instructions on how to assemble the bomb, or any explosives literature

- No Austin Rock\*Star No 6 delay electric detonators, or any remains from electric detonators, which would include, cut leg wires, delay tags, shunts, and leg wire bundle wrappers
- No literature or receipts that would suggest the purchase or ownership of Futaba components
- No identification from the eleven blue ink pens with the blue ink marks on the plywood from the bomb container
- No 9 volt or AA Duracell batteries with the same "date freshness code" as those used in the bomb
- No magnets like those used in the bomb
- No positive identification of the silver duct tape
- No black electrical tape identifiable with that used in the bomb
- No white plastic tape in Trenkler's possession
- No positive identification of adhesive
- No electrical components, or receipts for electrical components like those recovered from the bomb, even though Trenkler is in the electronics business.
- No trace evidence, i.e., hairs and fibers that associate Trenkler with the bomb construction
- No fingerprints identifiable with Trenkler

Based on the analysis of evidence collected from the bombing scene and inter comparisons with physical evidence collected from Trenkler's habitats and my personal observations there appears to be no physical evidence that links Trenkler with construction of the device that exploded in Roslindale, Massachusetts on October 28, 1991.