

Nov. 1, 1991

QUESTIONS?  
CALL →



U.S. TREASURY  
BUREAU OF ALCOHOL

DEFENDANT'S  
EXHIBIT

9

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## LIST & DESCRIPTION OF DEVICE COMPONENTS + SEARCH SUGGESTIONS:

- Magnets - two types → Adhesive & wood on both types of magnets indicates that they were originally glued to box
- Blasting caps  
2 Austin Rockstars → A connection between 2 yellow copper wires was wrapped with white tape. Bolsters theory that on detonator was placed in each dynamite cartridge.
- Explosive - dynamite
- Batteries - 9 volt and AA
- Radio control - Futaba unit  
found fragments of servo unit, receiver, and battery holder (for AA batteries)
- Page from weight lifting / muscle magazine
- Tape - 3 types recovered
  - 3/4 " black electrical tape
  - fiber reinforced silver duct tape
  - white plastic tape
- Box was constructed of wood panelling
- Paint - black spray paint
- Adhesive - hard clear or yellowish clear adhesive

## SEARCH : general suggestions

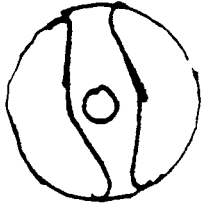
- gather trash
- use evidence vacuum to look for wire strippings or other trace evidence
- traces of dynamite should be present wherever it was handled

- the lab would definitely like to admit

# MAGNETS

Two types

- Diameter - 1"  
Thickness - 5/8"



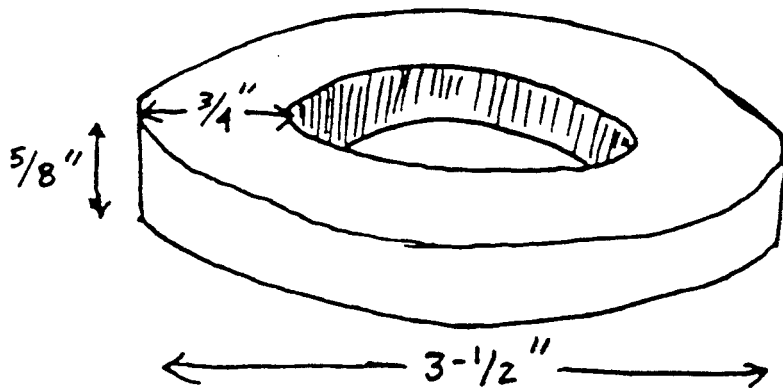
This type of magnet may be from inclinometer used in autobody shop but may be ordered through catalog

At least 6 recovered - most were painted red, a couple blue (originally up to 12 present)

These magnets are shipped a metal washer ~ 1" diameter  
The washer bears these markings:



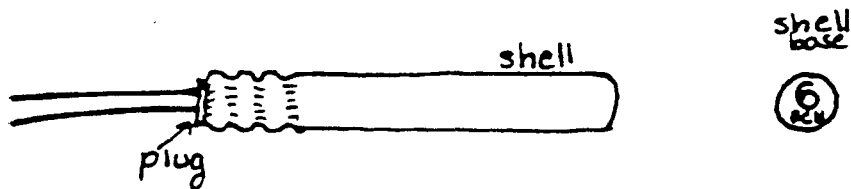
- Two large doughnut-shaped magnets  
Diameter - 3-1/2" or a little smaller  
Ring width - 3/4"  
Thickness - 5/8"



## BLASTING CAPS

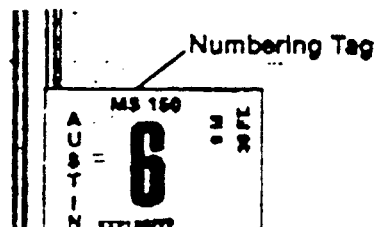
Austin Rockstar - Two were recovered

description : Aluminum shell  
red plug  
red & yellow single strand copper wire



- for search
  - shunt = red spaghetti tube (used only by Austin)  
tube of red plastic ~ 2" long & 1/8" diameter
  - bundle wrapper (used to hold hank of wire together)  
short strip of paper with staple  
printed "Austin"
  - Also look for cut red & yellow wires  
stripped wire insulation  
wire strippers (may have residual  
insulation)

- Delay tag



## EXPLOSIVES

Dynamite unknown brand and type (eg. gelatine dynamite, permissible dynamite)

possibly 2 or 3 sticks

dynamite wrappers are usually tan waxed paper

### • for search -

The components of dynamite leave a characteristic residue which is easily recovered from any surface where the dynamite was handled or stored.

The residue can remain for months & can be detected at extremely low concentrations.

To sample → either cut out substrate  
or swab

and place in vapor tight container  
e.g. paint can

• When canvassing dealers, ask if they used Austin Rockstars and dynamite.

Other types of explosives are more common than dynamite these days.

## BATTERIES

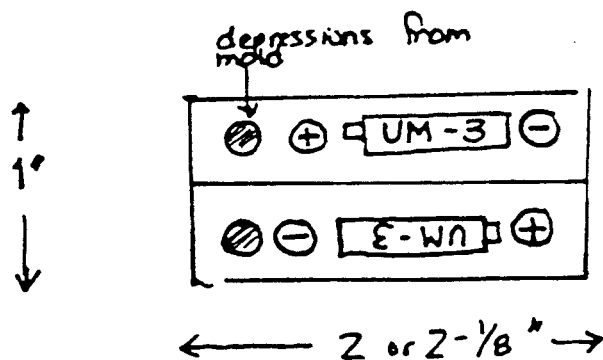
Five 9V Duracell batteries  
marked "BEST IF INSTALLED BY  
JUL 94"

Three AA Duracell batteries  
"BEST IF INSTALLED BY JUL 94"

## RADIO CONTROL - FUTABA

The red & black multistrand wire recovered may  
be from battery holder,  
The battery holder is from Futaba power  
source.

The battery holder held 4 AA batteries



## RADIO CONTROL - CONTINUED

SERVO :

The horn used on the device was identified as  
horn E



FSH-6E

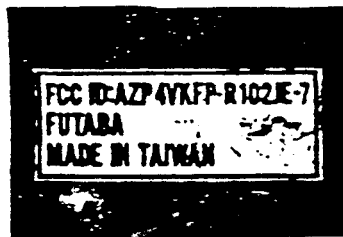
RECEIVER : Very little recovered.

the following writing is embossed on a piece of wood frag

'-R102JF'

This is a photocopy of the exemplar receiver :

on the interior of this  
housing, "1087" is printed  
on exemplar.



One fragment of plastic from device reads "105\_"  
this may correspond to "1087" on exemplar. Significance  
of this code is currently unknown

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## RADIO CONTROL - CONTINUED

On search look for:

- receipts
- packaging
- bubble pack
- plastic bag w/ spare parts
- Replacement horns for servo.  
(see diagrams of splined servo horns on photocopy)

The "on-off" slide switch recovered was originally thought to be part of the Futaba, it may not be.

I'll send more info if it is determined to be a different type of switch.

## ADHESIVE

clear or yellowish clear adhesive that dries hard.

possibly an epoxy or Elmers-type glue

Not silicone rubber or wood glue.

On search: recover adhesive, but comparison probably will only be identifying type of glue. Probably can't ID brand.

## OTHER WIRE

In addition to the <sup>small gage</sup> black, red & white multi-strand copper wire (part of RC),

also used in device was

- small gage <sup>multi-strand</sup> tinned-copper wire with red insulation
- medium gage multi-strand copper wire with red insulation.

## TAPE

- Black electrical tape - 3/4 inch wide
- White plastic tape - stiff plastic w/ adhesive backing (not cloth-back or Plumbers (Toflan) tape.
- Silver duct tape, fiber reinforced

on search: look for rolls or wads of tape  
if a physical match isn't possible on the ends  
then they can be compared microscopically and  
chemically

## WOOD

- panelling 1/4" thick  
two sided veneer on core
- (from lab: possibility that one veneer is red maple)
  - from lumber store - looks like oak or birch veneer.

## HARDWARE

nails used on box : 1" finishing nails

## PAINT

black spray paint

- on search look for residue where it was used  
or can

# MAGAZINE

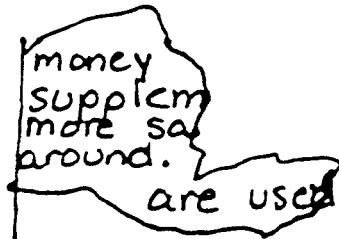
Page of magazine recovered appears to be from weight lifting/muscle magazine

• one side primarily red & yellow graphics & writing w/ some black & white  
can read

" Powerlif "  
' iron wor '  
' World '  
' werlifting '  
' ng-free '

• reverse black printing on white  
(possibly printed in columns)

can read



money  
supplem  
more sa  
around.  
are used

' food '

On search -

- look for any magazines or other printed material on weight lifting or body building
- any magazine with a page ripped out
- note magazines present so it can be determined

Sub 4  
CW  
12/5/91

## Magnets Button Type

The fragments of all the small magnets were combined & pieced together to determine a minimum # of magnets

2 blue magnets  
10 red magnets

diameter 1"

height .69" ( $\sim 5/8$ " )

hole  $\sim .022$ " ( $\sim 7/32$ "  $\rightarrow 3/8 + 1/32$ )

gap at end  $\sim .023$ " ( $\sim 7/32$ " )

The gap widens around the central hole  $\sim .037$ " ( $\sim 3/8$ )

\* The bottom of the magnets was examined to determine if the magnets had been glued to the box before or after it was painted:

	RED	BLUE
GLUED DIRECTLY TO WOOD	11	
WOOD PAINTED BEFORE MAGNET GLUED	11	1
UNKNOWN	111 1	1

# Radio Control Components

## SERVO

com: FSH-6E

Futaba FP-514B Indirect Drive  
S148

## RECEIVER

on inside of housing : 105  $\bar{E}$  ?

Two small wood frag have numbers transferred backwards in adhesive  
"R102JE??" appears to read "72" ← Frey

Another wood fragment has a thin band of partial characters that correspond to the following characters on the receiver: "4VKFP"

## BATTERY HOLDER

\* molded marks ~~appear to~~ match those for Futaba battery holder UM-3X4 ... 6V

## SLIDE SWITCH

\* Tinned copper wire metal plate is imprinted "ON" OLDER switch

Futaba (714) 455-9888

Spoke w/ John D'Amore X 213  
Divisional Service Manager

Rx 78 = Channel 78 at 75.750 MHz

72 band is for aircraft only

The printing on the receiver sticker used to indicate the channel so 72 could indicate aircraft band.

Hom E is most commonly used w/ RC cars

The white numbers on the inside of the receiver housing have no significance

They don't sell components to Radio Shack.  
Nothing special about any of the components.  
No special system uses all the components.

\* The on-off slide switch is an older model, not manufactured for a few years, but easily could be still on store shelves.

They don't do any private labelling, except for Cirrus and they used to do some for Hobby Shack a CA chain.

\* Paging systems often have very powerful signals that the receivers can respond to.

## Duracell AA batteries:

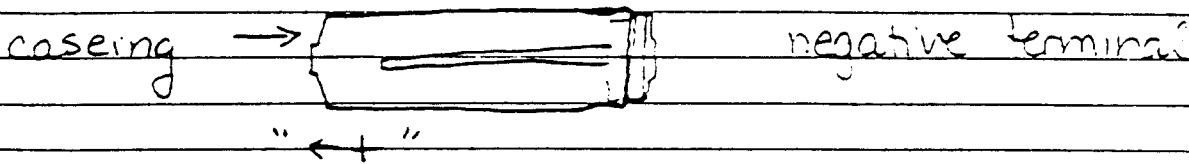
AA battery fragments were present in exh 8,  
and Exh 15 seat 6 batteries, Exh 15 seat 1 battery component  
Exh 33.

\* Fragments of (4) batteries were present:  
this is based on the following section of wrapper  
which is present only once on each wrapper.  
4 were present.

DURACELL®  
MN1500 1.5 VOLTS  
DO NOT CONNECT IMPROPERLY  
OR IN FIRE, BATTERY  
MADE IN U.S.A.

In addition:

Three casings were present (two w/ the negative terminal present), and 2 negative terminals.



Three wrappers had the following markings:  
BEST IF  
"BEST IF INSTALLED BY"  
JUL 94

The wrapper fragments for one battery could be pieced together so the following embossed code could be deciphered:

A L 0 1 1 2

↑?  
this character is on a fracture line and only part can be read.

## Duracell 9V batteries

9V battery fragments were present in Exh 15 seat 6 battery  
Exh 15 seat 1 battery components, Sub 1 exh 24,  
Sub 3 exh 39, Exh 14 battery component, Exh 15 seat 13  
battery fragments, Exh 20 seat 4 battery components,  
Exh 25 battery components, Exh 28 battery components,  
~~Exh 28~~

Each 9V battery contains 6 cells.

23 cells were recovered → ~~approximately~~ 4 9V batteries

\* Fragments of (5) 9V batteries are present.  
This is based on the section of the casing where  
the following info is stated:

BEST IF INSTALLED BY JUL 94
--------------------------------

On 4 of the casings the date is clear, one 1  
only 'JUL' is clear.

< The sides of the battery casings in many cases  
< have adhesive present in a roughly rectangular  
area. The sides of the batteries may have originally  
be glued together.

## Large Ring Magnet

From fragments can't tell if 1 or 2 were originally present

SEM: Fe, Sr

Sintered ferrite (iron oxide · strontium oxide)

Dimensions:

Outer diameter - 3.65"

Inside diameter - 2.05"

(web) Ring thickness - 0.790"

check: inside diam + 2(web) = 3.63

Ring height - 0.60"

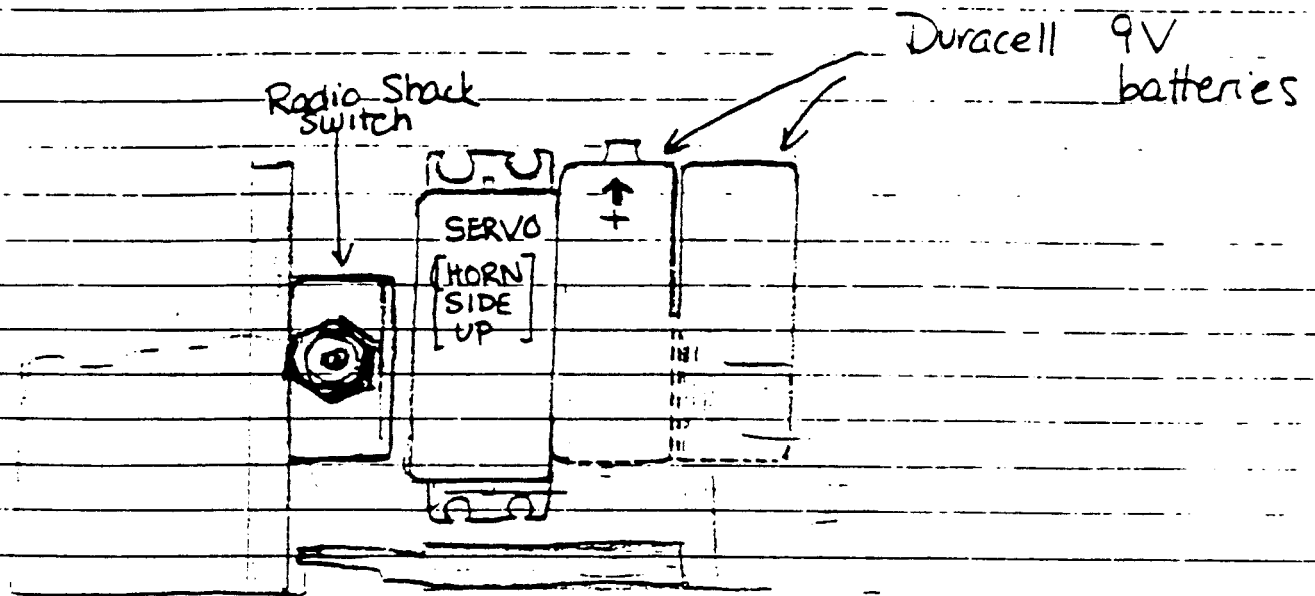
\* The box was painted before the magnet was glued to the wood.

- Fragments of a ~~wooden~~ <sup>wood</sup> box were present in the following exhibits:  
 from 2 wood & nails, from 2 plastic,  
 from 4 wood, Exh 9, from 12 wood, from 14 wood,  
 15 seat 1 plastic tape & wood, Exh 15 seat 5 wood,  
~~15 seat~~ 15 seat 7 wood & nails, 15 seat 9 wood,  
 20 seat 2 plastic, 20 seat 4 wood 2 pieces w/wrapping,  
 20 seat 10 wood & nails, Exh 16,  
 from 25 wood & nails, from 28 wood & nails,  
 from 29 wood, 36.

nails were present in exh:  
 15 seat 5 misc (1 nail)  
 6 screws & nails  
 20 seat 4 nails

- Not all of the wood was from the device box.
- The original dimensions of the box could not be reconstructed, but its original thickness was approximately  $1\frac{3}{4}$ ".
- The wood used was a 3-ply plywood approx  $\frac{1}{4}$ " thick with a dark maroon adhesive used for veneers.  
 FTIR maroon adhesive: inconclusive
- \* [ from MATK, all three layers of the plywood <sup>are</sup> ~~is~~ hard wood with the two veneers most consistent with oak. ]

- The exterior of the box was painted black. The appearance of the drips on the side are consistent with spray paint. SEM black paint: Si, Mg, Al, S, Cl
- \* A small wooden box was constructed on the larger box - see description next page
- Nails used in constructing the box were  $\sim 1$ " long w/ a  $\frac{1}{8}$ " diameter head
- Plastic fragment in exh 20 seat 2 plastic fits with the receiver fragment w/ silver label. These two frag show the back of the receiver w/ the silver label was glued to the box



Fragments of the pooled box fragments sketched above were used to reconstruct the approximate <sup>original</sup> size of the small box (approx  $2\frac{5}{8} \times 2\frac{5}{8} \times 1\frac{1}{4}$  height outer dimension). The Radio Shack switch could be placed based on a circular cut in the wood, thread marks in the adhesive and nut impression in adhesive. The body of the switch was inside the large box with the top part & the lever on the inside of the small box. The servo could be placed based on impressions from the end pieces in the adhesive. The top half of the servo with the horn was inside the small box while the bottom half was in the large box. FTIR (adhesive inside small box) : cyanoacrylate. Printing transferred to the adhesive disclosed the presence & orientation of 2 Duracell 9V batteries inside the large box.