



INVESTIGATIVE REPORT
BRANCH DAVIDIAN EVIDENCE
SEPTEMBER 1999



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TEXAS RANGERS



DEPARTMENT OF PUBLIC SAFETY INTEROFFICE MEMORANDUM

DATE: 9/10/99

DIVISION: Ranger

TO: Chief Bruce Casteel, Headquarters, Austin

FROM: Sergeant Joey D. Gordon, Company "F", Llano

SUBJECT: Review of Evidence Related to the Branch Davidian Investigation

On 06-14-99, you assigned me to review the evidence, which is held by the Texas Department of Public Safety, Texas Ranger Division, File No. RF093021 (Capital Murder – Steve WILLIS W/M, Age 32 on 02-28-93), this being the Branch Davidian investigation in Waco. There is approximately 24,000 pounds of evidence stored both in Waco and in Austin. My instructions were to review the evidence in Austin and notify you of any significant evidence identified. You also informed me of a piece of evidence which was questionable, a 40 mm shell casing found by Ranger Sergeant George TURNER in Sector EC1 at the Mt. CARMEL Center. I began to review the tapes and photographs provided to me by Ranger Captain Charlie BRUNE. It should be noted that the photographs that I viewed were only a portion of the total photographs taken. It is my understanding that the FEDERAL BUREAU OF INVESTIGATION (FBI) had taken all of the 35 mm film, negatives, and, reference material into their possession and only a limited number of photographs were returned to the Texas Department of Public Safety.

Before the review of all evidence provided by Captain BRUNE was completed, an investigation of the 40 mm shell casing was initiated in order to identify it. Sergeant TURNER had already provided you with an explanation as to his locating it and the explanation of its use that was provided to him by the Federal Bureau of

Investigation. Sgt. TURNER'S report to you, an aerial photograph of Mt. CARMEL Center, and a diagram with sectors drawn on it is ATTACHMENT A. In Sgt. TURNER'S report, the 40 mm shell casing is identified as EXHIBIT Q1237. Sgt. TURNER reported that FBI Special Agent Rick CRUM checked on Q1237, and advised that the shell casing did belong to the FBI. Sergeant TURNER also reported that CRUM said it had been fired after obtaining permission, in an attempt to knock a door down so gas could be dispensed. Sgt. TURNER also collected 40mm "FERRET" liquid CS casings and knew that Q1237 was different. ATTACHMENT B is photographs of an expended casing, projectiles, and packaging of "FERRET" rounds.

The shell casing Q1237 is a green-colored metal 40 mm shell casing which has six (6) square shouldered notches or cuts equally spaced located around the rim and has the ink markings:

AMM	LOT	NO.	NCI
3 - 38	- 1	0769	
40 mm	M118	HA-32-9-68	

On 07-22-99, I took custody of Q1237 to begin to fully identify it. I had digital photographs taken of Q1237, which is ATTACHMENT C, to aid in its identification. On 07-30-99, I had the DPS Laboratory collect trace element samples from Q1237 for future analysis as needed. ATTACHMENT C contains the packaging and all items found with the 40 mm shell casing.

I enlisted the assistance of the U.S. Army, U.S. Army Research and Development Engineering Center (ARDEC), and Rock Island Arsenal among others to help in identifying Q1237.

The first two lines in the above marking are in red ink and the third or bottom line is in black ink. The markings in red identify the completed round as: ammunition from Lot number NCI 3-38-1, which was made by Northrop Carolina, Inc. in July of 1969. Investigation revealed that Northrop Carolina, Inc. (NCI) of P.O. Box 3049, Asheville, North Carolina was opened on 09-21-65 and merged with another company on 03-

26-79. In 1998, C.T. Corporation of 225 Hillsbough Street, Raleigh, North Carolina, reserves the NCI trademark. However, on 07-30-99 C.T. Corp. advised that NCI was in name only and no records of the original company were known.

A military "Ammunition Data Card" was located for Lot number NCI 3-38; this is ATTACHMENT D. This data card indicates that the production for lot number NCI 3-38 was begun on 07-29-69 and was completed and shipped on 08-11-69. This data card would indicate that NCI 3-38 munitions correspond to Q1237 shell casing's markings and are within a three (3) day period of time, thirty (30) years ago. The differences between Q1237 and the Data Card for Lot NCI 3-38 are that the casing for Q1237 is made by "HA" not NCI, and there is a "-1" in the Lot number on Q1237. The data card shows that the casings for NCI 3-38 were to be made by NCI and there is no "-1".

The third line in black ink on the shell casing indicates it is a 40 mm casing, the casing model number is an M118; it was made by HA, in lot number 9-32 in September of 1968. The "HA" is Harvey Aluminum, Inc. of 19200 Southwest Avenue, Torrance, California. Investigation revealed that Harvey Aluminum is now an inactive company and is now part of Martin Marietta Aluminum Division at 19600 Southwest Avenue, Torrance, California. No data card for Lot number NCI-3-38-1 could be found; however, the "-1" could be explained due to HA cases being used to complete the order originally using NCI cases. This alteration would require a change be reflected in the lot number, hence the "-1". This was confirmed when original loaded cartridges of lot number NCI 3-38-1 were located at the Pine Bluff Arsenal in Pine Bluff, Arkansas by Criminal Investigator Terence "O'D" O'DONNELL of the Department of Defense Industrial Operations Command, Rock Island Arsenal. Investigator O'DONNELL ordered two (2) of these cartridges held for this investigation. Ranger Sergeant Howard DUNHAM took custody of these two (2) cartridges on 09-07-99. Investigator O'DONNELL had e-mailed to me photographs of one of these live cartridges from lot number NCI 3-38-1, and these photographs are ATTACHMENT E.

These cartridges are early experimental M651 rounds used by the U.S. Government. They are designated under item nomenclature as CTG. 40 mm XM651E1, CS. The DODIC is B567 and the National Stock Number (NSN) is 1310-00-849-2083. This corresponds with the exact data found on the Ammunition Data Card for Lot Number NCI 3-38. The data card indicates that Diagram 122-2-6 would be of the XM651E1 cartridge. Diagram 122-2-6 is ATTACHMENT F and matches Q1237.

I obtained an Operator's Manual for NSN 1310-00-849-2083, the 40 mm TACTICAL CS, M651. To be more accurate in information about an older cartridge, I obtained Technical Manual TM 3-1310-243-10 from January 1975, which is ATTACHMENT G. This manual indicates that this cartridge has a projectile that delivers a CS agent and is fired from a 40 mm casing. This casing has six equally spaced notches located around the cartridge case base. When fired, the projectile disperses CS into the atmosphere by the burning of a pyrotechnic mixture. The manual, on page 10, reports the burning time to be 20 to 30 seconds, and the projectile carries 53 grams or 2 ounces of CS agent –pyrotechnic mixture. This projectile is gray in color with a red band. The red indicates that this is a non-persistent-effect irritant agent.

The manual states, on page 11, that the M651 cartridges are not explosives rounds; however, a malfunctioning projectile may explode upon impact. The M651 projectile is reported capable of penetrating window glass and up to $\frac{3}{4}$ inch pinewood at 200 meters and then delivering the CS agent. The max range is 400 meters. The manual for the M651 cautions that the projectile will cause injury to personnel in its path when fired. The diagram on page 7 and the description of the cartridge identification on page 14 indicate that the cartridge nomenclature should be marked on the base of the case. However, a note on page 14 also indicates that the lot number and nomenclature may be on the side of the case, which is consistent with Q1237.

No reference or fire hazard warning is provided in the manual, so I asked Investigator O'DONNELL to research what he could about tests conducted when the M651 was being developed to determine the realistic degree of hazards of starting a fire. On 08-

31-99, Investigator O'DONNELL advised me that he had consulted Ray JOHNSON who is currently the DECON/MUNITIONS Team Leader for the Soldier's Biological Chemicals Command at Rock Island Arsenal. JOHNSON advised that they had not explored the fire hazard of the M651 because it was known to cause fires. The projectile burns at 500 to 700 degrees Fahrenheit, and is capable of igniting flammable items. JOHNSON also advised that the military had no official definition of a pyrotechnic round but that the M651 was considered a pyrotechnic round by the military.

Investigator O'DONNELL also advised that no shipping records could be found on lot number NCI 3-38-1. These records are normally maintained for two (2) years.

It was of interest that Investigator O'DONNELL advised me on 08-27-99, that numerous inquiries from the news media and FBI personnel had been made to arsenals about the M651 and the fire potential following the news events of the preceding days.

I also requested that Investigator O'DONNELL research and provide me with a breakdown of the active ingredients in the M651. His report to me is ATTACHMENT H. It reports that the active ingredient in the M651E1 is: CS = o-Chlorobenzalmalononitrile (Mil-R-51029C) and the pyrotechnic mixture is the standard fuel/oxidizer/coolant formulation used on many smoke munitions. This being:

Agent (CS)	40%
Fuel (Sugar)	18%
Oxidizer (Potassium Chlorate)	27%
Coolant (Magnesium Carbonate)	12%
Binder (Nitrocellulose)	3%

On 09-03-99, I received a Technical Data Packet (TDP) for the XM651E1 round from Investigator O'DONNELL. It is included as an ADDENDUM to ATTACHMENT H; because of its irregular size and is printed separately.

During my review of the photographs in evidence, I found a photograph of a projectile that is gray with a red band lying in water. A copy of this photograph is ATTACHMENT I. There is no location number or photographer identified on the photograph. I had the lab photographers look at the photograph and none recalled taking the photograph. DPS Photographer Mike HOLLE advised that he took some photographs in an area with standing water which was near the bottom of Sector F or the top of Sector A, and he advised that he could have taken the photograph. DPS Photo Lab personnel advised that they had made detailed notes on each photograph taken, and they could give the location, photographer, settings, and other detail information about each picture. However, the FBI had taken all their notes and negatives and this left them with nothing to reference. It should be noted that in the photographs and videos of the Mt. Carmel Center taken after the fire, I observed standing water in numerous locations.

The gray/red banded projectile in the photograph, ATTACHMENT I, appears to be expended and has a brown/black (tar-colored) mark on the ogive. The projectile is not burned and is not a cooked-off round. Documentary filmmaker Mike McNULTY was unable to find this projectile in the DPS evidence when he searched for it. At this time, it is unknown what the photographed projectile's "Q" number or evidence number is; however, it is physically the same as the projectile to be mated with Q1237.

Ranger Lieutenant James MILLER, who was in charge of evidence collection at Waco, looked through his notes and records and found two (2) items in evidence held at Waco that could possibly be the gray and red-banded projectile. C548 was labeled as a "fired tear gas projectile" and C596 was labeled as a "fired tear gas shell." On 09-03-99, Lt. MILLER, Capt. BRUNE, and myself traveled to Waco and located these items; however, neither were the gray and red-banded projectile. C548 was an expended "FERRET" projectile, and C596 was the capsule of a M583A1 "WHITESTAR" parachute flare which was found in Sector F-C6A by Ranger Sergeant George FRAISER (now retired).

To conduct a proper search for this and other items, a detail inventory of all evidence will be made in preparation for release to the Clerk of the United States District Court for the Western District of Texas.

The location where the shell casing Q1237 was found may have no relationship to where it was fired. The shell casing was recovered in Sector E by Sgt. TURNER. It is possible that this is where one of the FBI's Hostage Rescue Team's (HRT) armored vehicles was cleaned out following the assault on the Mt. CARMEL Center by the use of 40 mm "FERRET" rounds.

Two other pieces of evidence held to be fully identified were two 40 mm projectiles identified as Q379 and Q380 which were recovered by Sgt. FRAISER in Sector F. These projectiles are similar in make, markings, size, and dimensions to each other. They differ in degree of exposure. Both have been fired and expended, and both have a black plastic nose covering the ogive, which is unbroken. One projectile shows more scratches and marks on this plastic covering than the other. "40 AG DM 118 A1" is stamped into the base of both projectiles. Neither projectile is burned nor are they cooked off rounds, and both have rifling marks made by lands on the rotating band, meaning they have been fired from a weapon. I had digital photographs made of one of these projectiles to aid in identification. These photographs are ATTACHMENT J.

The measurements and the stampings of these projectiles are not standard and are inconsistent with each other; therefore, military records and JANES INFORMATION GROUP were unable to identify them. I made a diagram of the measurements of these projectiles, which is included as ATTACHMENT K.

During the investigation to identify these projectiles, Q379 and Q380, I made contact with Fred PICKLER and Peter McAULEY of NICO Pyrotechnik. I provided them with the photographs in ATTACHMENT J. After viewing the photographs and consulting with the NICO German engineers, Peter McAULEY advised that the projectile did appear to be of NICO manufacture.

Peter McAULEY further advised that during the early 1990's, U.S. Law Enforcement was inquiring about a sound and flash projectile that could accurately be deployed and cause a distraction in special situations. The FBI had been one of those law enforcement agencies that were making inquiries. NICO already made a DM118 A1 round for the German Army that was a practice round. This round was a 40 mm cartridge that propelled a projectile with a tracer compound in the base and an orange "impact signature" marker compound in the nose. The DM 118 A1 would fire at about 78 meters per second, leave a visible tracer to the rear and then an orange chalk mark upon impact. These projectiles were of aluminum construction and had a black plastic covering over the ogive. The stamping on the base means it is a 40 mm, the AG is an abbreviation for cartridge/practice or training cartridge in German, DM is the international designation for German manufacture, 118 is the German Army's number for this training round, and the A1 designates that it has been modified or is a newer version than the original DM 118. I received a diagram and information on the DM 118A1 from ARDEC and it is ATTACHMENT L.

To facilitate the U.S. Law Enforcement request for a sound and flash cartridge, NICO used the 40 AG DM118 A1 projectiles, which they already made, to modify for the sound and flash cartridges. These projectiles were modified to hold a report composition in the nose, which would make a flash and sound similar to a "flash bang" but of less intensity, about 130 dBA. These projectiles had no tracer capability and would discharge at about 100 meters or 1.3 seconds.

The modification of the DM118A1 to the Sound and Flash round was accomplished by drilling out the center of the DM118A1 projectile and inserting a "blast chamber housing." This blast chamber housing is a cylindrically shaped piece of aluminum, which has a small hole in the center from the base up to just short of halfway where a large open cavity then is bored to the mouth. The small hole is the delay column and the large open cavity is for the report compound. The blast chamber housing is then span into the projectile body and secured with "Loctite 270."

The delay column uses a mixture of 80% silicium powder (Si) and 20% red lead (Pb3 04) to burn in the lower part of the hole through the base. This is ignited by the cartridge propellant, which is a nitrocellulose. This delay charge burns at a consistent rate and then ignites a column of pressed black powder. This in turn ignites the report compound that consists of aluminum powder and potassium perchlorate. This composition was being used by NICO in hand-held sound and flash devices, and the company had done extensive testing of this composition with regards to fires, noise, and flash. This composition did not start fires when tested on straw, a sofa, against curtain material, and kerosene. It did ignite gasoline. These projectiles were NICO 40 mm x 46 sound and flash (S & F) cartridges of a prototype design, and there were only approximately 1000 made in about 1990. The report (sound and flash) was discharged from the nose of the projectile, and during testing, it was found that the projectile could be propelled in an undesirable direction under certain circumstances. The design was subsequently modified for volume production to correct this problem. Projectiles marked 40 AG DM 118 A1 are no longer used for the basis of this cartridge. Since these rounds were developed to NICO's "Technical Specifications and Acceptance Regulations" for U.S. Law Enforcement and not to MILSPECS; there can be confusion in trying to identify these rounds.

These rounds were to provide law enforcement the ability to accurately place a distraction device into a desired area even through a barrier if needed. The cartridge should penetrate about 40 mm at 40 meters. The plastic nose will break on impact when striking something hard. Peter McAULEY advised that reviewing the pictures indicate that the projectile was utilized as designed and was aerially deployed without making penetration of any barriers. Fred PICKLER inspected Q379 and Q380 in Austin on 08-25-99 and concurred. The written correspondence I have received from NICO is ATTACHMENT M and includes a diagram of the 40 mm X 46 (S & F) as made in the prototype design like Q379 and Q380.

Peter McAULEY advised that due to the time involved it would take some time to find customers records from 1990 that purchased the prototype cartridges. An engineer at the German factory remembered possibly about 10 cartridges being sent to the

USA. He also recalls they may have been shipped through distributor FFE International. This is Frost Family Enterprise International managed by Jack FROST. FROST is a retired Colonel from the U.S. Army and has been a consultant for Mike McNULTY and accompanied McNULTY at the DPS evidence locker. Mike McNULTY advised that Col. FROST had delivered about 50 NICO cartridges to the FBI HRT back in the early 1990's, but Col. FROST also advised that Q379 and Q380 were made by ARGUS. Col. FROST also pointed out that Q379 and Q380 were mislabeled as CS gas projectiles on the evidence packaging. Col. FROST was correct about the mislabeled packaging; however, these projectiles do not seem to be of ARGUS manufacture.

ARGUS is an Austrian Arms Company ARMATUREN GESELLSCHAFT, Phone E 437 673 27810. Mike McNULTY sent to me a diagram of the projectile he believes Q379 and Q380 to be. The diagram of ARGUS 40 mm x 46 FLASHBANG 93 does not appear to match. This diagram is ATTACHMENT N. Mike McNULTY also advised me that his tests indicate that Aluminum powder, extruded iron oxide, and no potassium perchlorate were in Q379 and Q380. This leads Mike McNULTY to believe they were changed since potassium perchlorate is needed in a flashbang and should be in the compound.

To address the issue of tampering or alteration of these projectiles, I had the DPS Lab take samples for trace element testing from the nose and base of both Q379 and Q380. For future comparison and identification, Q1237, Q379, and Q380 were extensively photographed and ballistic evidence taken by the Lab.

I also learned how the NICO 40mm x 46 S & F cartridge is made and functions and how the XM651E1 functions. Shell casing, Q1237, is a M118 shell casing, which expels gases from the high pressure chamber in the center of the case, toward the inside of the case wall into the low pressure chamber. This places pressure on the base of the projectile, which is held into the case by a crimp at the case mouth. The pressure at the base of the projectile will overcome the crimp and the projectile will be propelled out the barrel. Projectiles Q379 and Q380 are fired from another type

casing which forces gases straight up into the base of the projectile and into a low pressure chamber until a predetermined level of pressure is reached. The projectile is held to the casing by a threaded column at the high pressure chamber. At the predetermined level of pressure, the threaded column breaks, and the projectile moves down the barrel and the delay column is ignited. These two separate deploying systems are not easily compatible with each other, and it seems very unlikely that Q1237 had anything to do with Q379 and Q380.

The NICO 40mm x 46 S & F report composition is of potassium perchlorate and aluminum powder. The potassium perchlorate is water soluble and both Q379 and Q380 were exposed to the outside elements for an unknown period of time. It is also unknown what type of tests were performed on Q379 and Q380 before I took custody of them. Also, since chemicals change physical states and molecular composition during a chemical reaction, I asked for assistance from the Director of the DPS Crime Lab Ron URBANOVSKY. He advised that he would research what chemical elements need to be searched for to determine if Potassium perchloate was present before the report composition was ignited.

By learning of the manner in which the NICO 40mm x 46 S & F cartridge is made, it is not easily altered, although it is not impossible. From what I have learned, Q379 and Q380 do not appear to have been altered; however, until all tests are completed and chemical evidence compared and evaluated, it cannot be concluded.

Mike MCNULTY has advised me that other evidence held by DPS is crucial to proving some of his suspicions that the FBI and ATF have not been truthful in their account of the Branch Davidian investigation. Mike McNULTY advised:

- A. That flash bangs had been misidentified as firearm silencers and, thus, overlooked as key evidence in the investigation of the fire;
- B. That a "watch cap" worn by Michael SCHROEDER, who was killed on 02-28-93, may contain powder residue showing he was shot at close range contradicting the shooting report;

- C. That a “shape charge” may have been placed on the concrete roof of the “bunker” at the bottom of the tower, and that a bedroll found in the “bunker,” which was not totally consumed by the fire, may contain trace elements of the explosive compound from the “shape charge” and;
- D. That video tapes and pictures could be key in identifying elite military personnel such as Delta Force personnel who were at the scene.

As per your instruction, when all the evidence is inventoried for transfer to the Clerk of the U.S. District Court for the Western District of Texas, the above items of evidence will be identified and boxed separately with other significant evidence. This will clearly identify this evidence for easy access for future investigators.

Also, Mike McNULTY has questioned .308 Winchester cases located at the undercover house, which may show that the FBI snipers fired rounds on 04-19-93. The under cover house A and B were located near the Mount Carmel Center and were used by law enforcement officials prior to the ATF raid on February 28, and during the stand-off between the Davidians and law enforcement. The recovery of these casings was reported by Ranger Sergeant Ronny GRIFFITH in Report RF093021-U.12. A manila envelope marked U-12 contains this report, the original handwritten report, and notes and photographs of the scene. In the report, Sgt. GRIFFITH reports the recovery of:

- A. Twelve (12) .308 F.C. cases and twenty four (24) .223 IMI cases recovered at Undercover House A;
- B. Three (3) .45 cal. shell casings recovered between Undercover House A and B; and,
- C. One (1) 22-250 casing recovered in the driveway of Undercover House B.

These casings will also be placed with the above evidence.

Also, as reported to you earlier in this report, part of an M583A1 "WHITESTAR" parachute flare was found among the evidence. Since this is incendiary in nature, it and all the other flares identified will be separated and boxed.

In concluding this first report to you, I am including a copy of a letter I received on 08-31-99 from AUSA Bill JOHNSTON to Attorney General Janet RENO giving his perspective on this investigation. With AUSA JOHNSTON'S permission, this letter is ATTACHMENT O.

I will keep you informed by memorandum, as efforts continue to locate and identify questionable evidence, including the M 651 projectile. Also, when test results and other outstanding information is received, I will report to you promptly.

TABLE OF ATTACHMENTS

ATTACHMENT A

Copy of Memorandum of 6/30/99 from Ranger Sergeant George L. Turner
Diagram of Mount Carmel Center
Photograph of Mount Carmel Center

ATTACHMENT B

Photograph of Fired 40 mm "Ferret" Shell Casing
Photograph of Fired and Expanded "Ferret" Projectiles
Photograph of "Ferret" Boxes in Trash Container

ATTACHMENT C

Photographs of Q1237

ATTACHMENT D

Ammunition Data Card Lot Number 3-38

ATTACHMENT E

Photograph of Loaded XM651 E1 Cartridge from Lot NCI 3-38-1

ATTACHMENT F

Diagram 122-2-6

ATTACHMENT G

Technical Manual TM 31310-243-10
Operator's Manual CTG-40-MM
Tactical CS, M651 January 1975

ATTACHMENT H

Mil Specs on the M651 E1
Includes the Addendum: Technical Data Packet (TDP) for the XM 651 E1

ATTACHMENT I

Photograph of Fired Gray and Red-Banded Projectile

ATTACHMENT J

Photograph of Q380

ATTACHMENT K

Diagram of Q 380 made by Ranger Sergeant Joey D. Gordon

ATTACHMENT L

Diagram of 40 AG DM 118 A1 Projectile

ATTACHMENT M

Correspondence with NICO Pyrotechnik

ATTACHMENT N

Information on ARGUS 40 MM x 46 Flashbang 93

ATTACHMENT O

Copy of letter from Assistant United States Attorney Bill Johnston to
United States Attorney General Janet Reno

ATTACHMENT

A

**Copy of Memorandum of 6/30/99 from
Ranger Sergeant George L. Turner**

Diagram of Mount Carmel Center

Photograph of Mount Carmel Center

**DEPARTMENT OF PUBLIC SAFETY
INTEROFFICE MEMO**

DATE: 06/30/99
DIVISION: Ranger

TO: Chief Bruce Casteel, Texas Ranger Division
FROM: Sergeant George L. Turner, Texas Rangers Co. F, Cleburne
SUBJECT: Branch Davidian Evidence

As per your instructions, I submit to you this memo in regards to a particular piece of evidence I recovered during the search of the Branch Davidian Compound after it was destroyed by fire on April 19, 1993.

I was initially assigned to the investigation of the Branch Davidians immediately after the failed execution of the search and arrest warrant by the Bureau of Alcohol and Tobacco. After the above described fire I was assigned as a Team Leader of Team #2. Our mission was to conduct a thorough crime scene search and locate any and all evidence that would assist Federal prosecutors in the successful prosecution of the surviving Davidians. Texas Ranger Gary DeLosSantos was assigned to my team as the Recorder.

On Thursday, April 22, 1993 my team began the search of what is described as Sector E. This sector encompassed an area generally from the northwest wall of the large underground fort and northwest of the Compound's curtilage. This sector was gridded into 45 individual grids within an area measured at 160 feet by 480 feet. Forty of these individual grids measured 10 feet by 20 feet and 2 of the grids measured 80 feet by 80 feet. Two of the grids measured at 80 feet by 100 feet and one grid measured 160 feet by 200 feet.

Sector E grids were individually marked for identification beginning with EA1 through EA8, EB1 through EB8, EC1 through EC8, ED1 through ED8, EE1 through EE8, EF1 through EF8, EG1 through EG2 and EH1. All were numbered, excepted as noted; one through 8 in a northwesterly direction.

This sector would eventually yield 43 separate Ranger exhibits. They consisted mostly of bullets, bullet fragments and cooked off cartridge cases. In this sector was also located 6 automobiles, a tractor and a 16 foot trailer.

On April 23, 1993 the actual evidence collection began. The previous days had been spent in the gathering of the necessary equipment and the gridding process. Assigned to my team at that time were DeLosSantos, Special Agent(FBI)Kevin Ashby, Special Agent (FBI)Jose Rodriguez, Special Agent(FBI)Jan Bray, DPS Photographer Michael Holle, DPS Latent Print Examiners Danny Carter and Oscar Kizzee, DPS Chemist Irma Rios and DPS Criminalist Dottie Collins.

At approximately 2:15PM while operating in Sector EC1 I located and collected what would later become evidence item Q1237. This exhibit (Ranger Exhibit #17 of RF093021-BB-27) was a spent 40MM metallic cartridge. This item was found among 28 plastic Ferret Rounds that had contained CS Liquid Gas. There was also found in this grid 2 cartridge box containers of the Ferret rounds. The metallic cartridge and the plastic Ferret rounds were in the same pile to the best of my memory. I have never seen a photograph of this exhibit. As stated above there was a photographer assigned to my team on this date. However, there were not enough photographers to have one assigned to each team and they were moved from team to team as necessary. Therefore, I may have been unable to have this item photographed at the time of its retrieval. Neither myself or Ranger DeLosSantos were familiar with the nature of this metallic cartridge.

At approximately 5:22 PM of that date I carried the collected exhibits to the collection point where all evidence was being turned over to evidence technicians and ultimately to Ranger Jim Miller. While waiting to submit these gathered exhibits, I showed the metal cartridge to Ranger Charles Brune and Ranger Joe Peters, both of whom were military veterans. Both Brune and Peters stated that the cartridge was that of a "Thumper Round." Not being familiar with the term I inquired farther. Both Rangers stated that the cartridge fired a high explosive round. It was submitted as an exhibit at that time with the 28 plastic Ferret cartridges.

At some point later I spoke with Special Agent (FBI) Rick Crum who was in charge of FBI personnel at the crime scene. I told him about the spent cartridge and that Ranger personnel had described it as a "Thumper Round." Agent Crum told me he would make an inquiry about it and let me know his findings. I am not sure but I believe I let Agent Crum look at the item and obtain a lot number from it. I am not positive on this though. The fact that I had discovered this item was made known to Ranger Captain Byrnes who was in charge of Ranger personnel at the time.

On Saturday, January 8, 1994 I traveled to San Antonio. The trial of the US Government versus the Branch Davidians would begin on Monday, January 10. Testimony actually began on the afternoon of January 12, 1994. I did not take the stand to give testimony until the morning of Thursday, January 13. I would testify again on February 2 and February 10. On my first day of testimony I presented all evidence that I had collected from Sectors E, I and J. Prior to my testimony of January 13 I was contacted by Agent Crum who was also in San Antonio for trial purposes. Agent Crum told me that he had checked the lot numbers of the item in question and that the round did belong to the FBI and that it had been fired by them. He continued by saying that the Agents who were dispensing the CS gas into the Compound on April 19 had fired the round after obtaining permission to do so. I do not know who gave the permission. According to Agent Crum the projectile had been fired at a door near that portion of the building in an attempt to knock it down so the gas could

be dispensed. I remember no further conversation with him about this item. I did not inquire if any examinations had been conducted on the cartridge. I was about to enter the courtroom or something similar and did not have a lot of time to continue the conversation.

To the best of my memory I admitted the exhibit containing this item and the spent plastic Ferret cartridges. These 29 separate items had been placed in a clear plastic bag and sealed. There were no questions asked me by the defense about this particular exhibit.

On Friday, August 21, 1998 I traveled to Austin and met with Ranger Lieutenant's Coffman and Miller. We went to the location at DPS Headquarter where the Court Exhibits from San Antonio are stored. At that time we met with a documentary film maker who had requested visual inspection of certain exhibits. One of his requested items was that of the "thumper round". Prior to this meeting I had been faxed a photograph of what I believe to be the cartridge in question. This photo had been taken at the FBI Laboratory in Washington, DC. I have never seen the original photograph but believe it to be in the possession of Captain Brune, however, I am not certain of this only that he faxed it to me. During the search for the requested items, we could not locate this exhibit. After discussion with Coffman and Miller the possibility existed that the item had not been submitted as a Government's Exhibit during the trial as I had believed. If that was the case it would mean that the exhibit would be currently stored at a warehouse in Waco with the other non-trial exhibits. However, it was still my belief that it had been entered during my first day of testimony.

After being unable to locate the item in Austin I returned home. I searched the Internet and found a location that contains the trial testimony of many of the witnesses that appeared in the San Antonio prosecution. My testimony is among these. In reading my testimony, particularly when exhibits of my Sectors are being admitted, I found no mention of a plastic bag containing 28 spent plastic cartridges and one spent metal cartridge. I do not know if the transcripts I was reading from are complete or not.

It is now my understanding that at the time of this writing the exhibit has been found at the Austin storage site. This would seem to indicate that it was admitted during trial but would not necessarily mean so. I do not know if the plastic bag that contains the cartridges is affixed with a yellow Government Exhibit marking or not. This information would definitely clarify if it was admitted or not.

I never came forward with the information that would seem to indicate that an explosive projectile was fired on April 19, 1993 other than stated above. But I was never asked the question. If I had been I would naturally responded with the truth. Be it on the witness stand or elsewhere.

I know that Lieutenant Coffman contacted then Senior Captain Cooke and Captain David Byrnes before they were to testify before the Senate Sub-Committee in Washington and reminded them

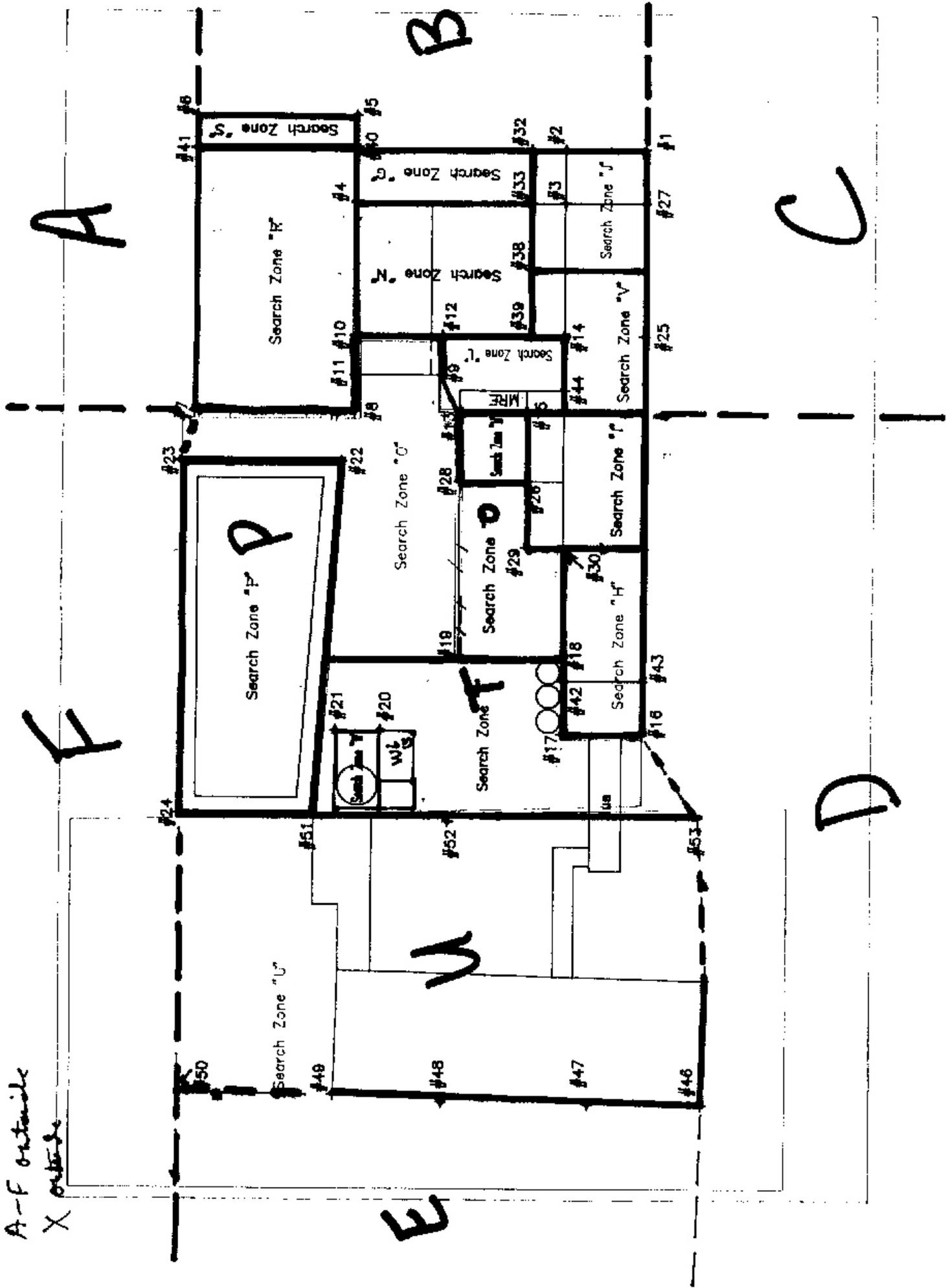
of the possibility of an explosive round having been fired. I believe this to have occurred during the Summer of 1995 while I was on a seven week sick leave having had my heart repaired.

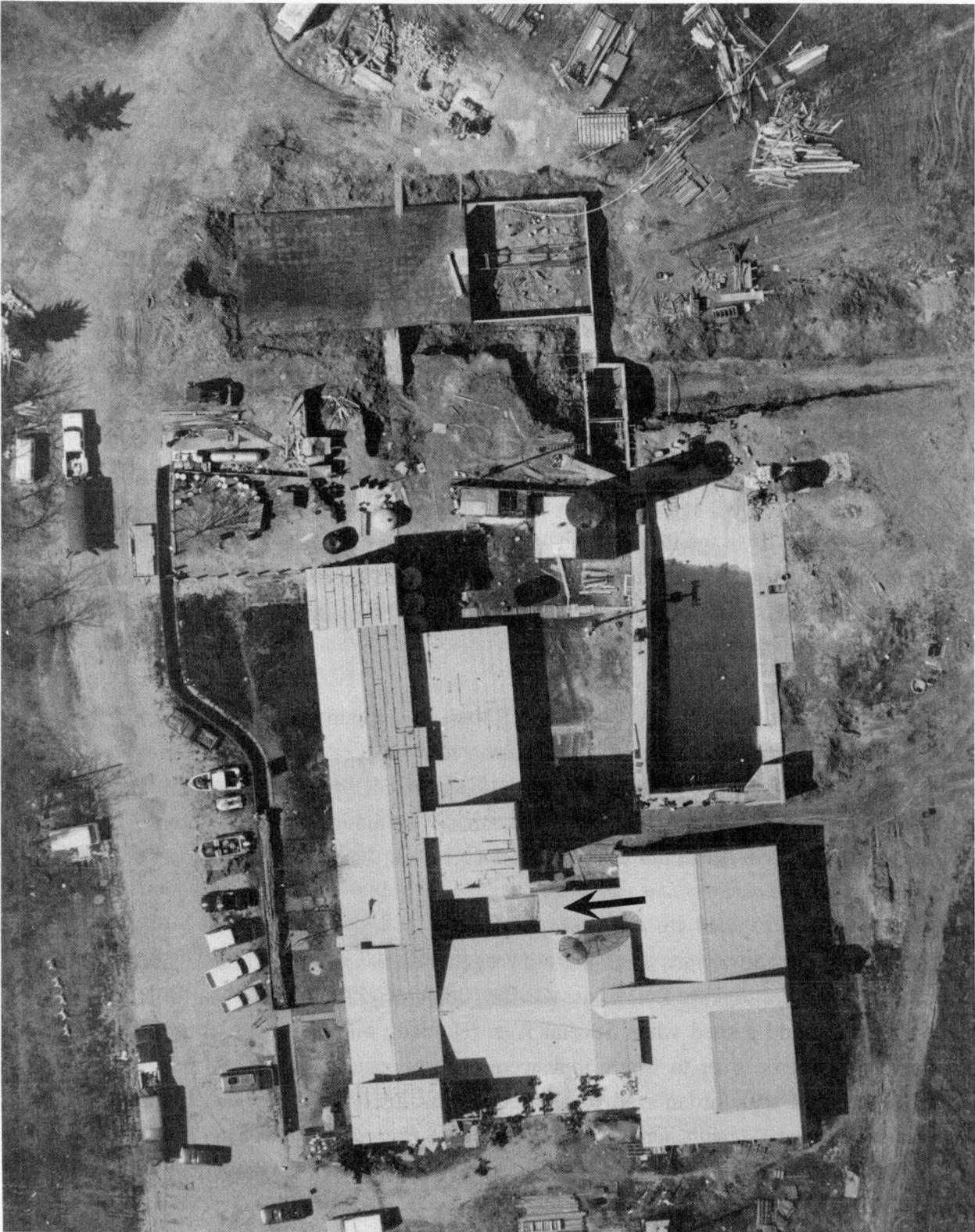
Respectfully submitted,

George L. Turner
Sergeant
Texas Rangers Co. F
Cleburne

CC:Captain Kirby Dendy
Lieutenant Ray Coffman

Q, K not used
 A-F outside
 X outside





ATTACHMENT

B

**Photograph of Fired 40 mm "Ferret"
Shell Casing**

**Photograph of Fired and Expanded
"Ferret" Projectiles**

**Photograph of "Ferret" Boxes
in Trash Container**





ATTACHMENT

C

Photographs of Q1237

30830032 S

Q1237 ZL

- WACO -





Q1237

3083003274

EC1

#160

56A

215P

Q12493





308300 3/11/10
100 #
MFB - 4/11/10

EAD MARKER # 5



2-2-33

EDD Swack

1
10/10/10
10/10/10
10/10/10



[Redacted]

Mike Donohy, FBI, Spokane

Cannot tell - wet

EOD Shack - no M118
in 40mm

M1918 - different appearance
by

M118 not like ours >
not 40mm

Bring Bc

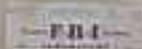
Q1237

308300327

ECI #160

507 215P

012493







40MM

3-10-1

40MM M115



NO. 10
1-10
M118

ATTM

3-30-

40MM M113

↑

1



↑

1

40MM M113
3-30-1

40MM M113



NO. NO
- I 0768
M118 HA932



2

NO. NCI

1 0769

118 HA9-32-9



NCI

1568

HA9-32-9-68



3

32-9-68



58



4



5



6







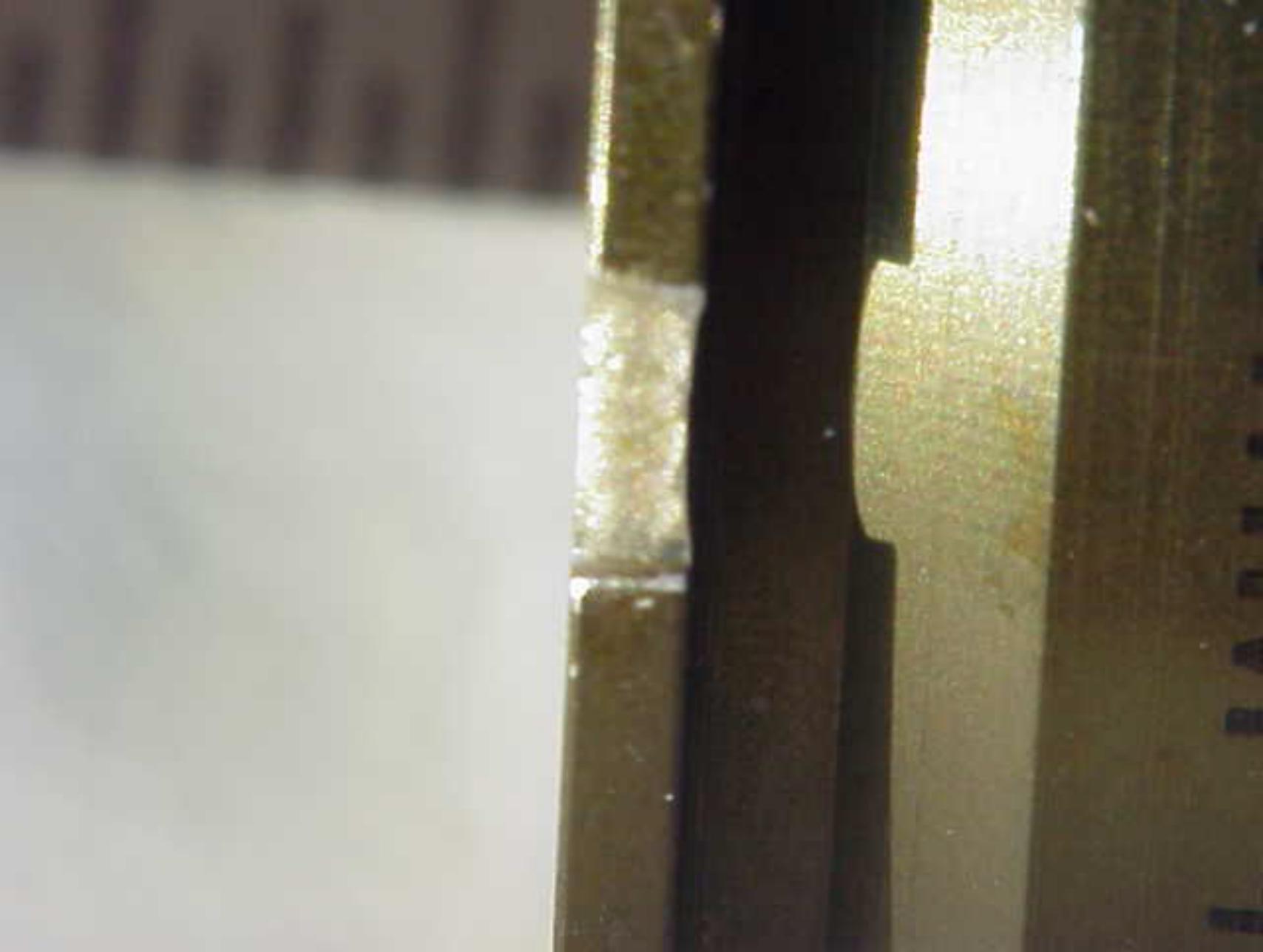




7/11/1









NCI
169
MA9 32 9 68

INCHES

1

2

3

BATES NATIONAL

BNR - 6

8 9 10 11 12 13 14 15

ATTACHMENT

D

**Ammunition Data Card
Lot Number 3-38**

AMMUNITION DATA CARD		Form Approved OMB No. 0704-0188	
1. ITEM NOMENCLATURE CTG, 40MM, XM651E1, CS		2. NSN 1310-00-849-2083	
3. DODIC B567		4. LOT NUMBER NCI-3-38	
5. MANUFACTURER NORTHP CAROLINA		6. NET QTY 37964	
7. PACKING OF LOT 24/BOX		8. DRAWING AND REV. SEE-REMARK	
9. CONTRACT/ORDER NO. SEE-REMRK		10. SPECIFICATION AND REVISION 196-131-835A-7	
11. DATE STARTED 07/29/69		12. DATE COMPLETED 08/11/69	
13. DATE INSPECTED 08/11/69		14. LINE 107	
15. ZONE WGT		16. EXPLOSIVE WT PER PACKAGE	
17. SPECIFICATIONS		18. PRODUCTION PACKING DEPTH RANGE IN.	
19. CHARGE WEIGHT		20. MAX PACKING DEPTH IN INCHES	
21. TEST SAMPLES		22. DATE OF SHIPMENT	
23. NUMBER 35		24. SENT TO	
25. DOT NOMENCLATURE		26. HAZARD CLASS ADD	
27. GOVERNMENT QUALITY ASSURANCE ACTIVITY		28. GOVERNMENT QUALITY ASSURANCE ACTIVITY	
29. COMPONENTS		30. LOT	
31. DRAWING NO.		32. QTY	
33. MANUFACTURER		34. DATE	
35. MIL-C-50090-B		36. NCI	
37. PA-PD-55		38. HERCULES	
39. 122-2-17-AND-18		40. NCI	
41. CTG		42. 0769	
43. BODY		44. 0769	
45. PRIMER M42		46. 0768	
47. TRIPLEX		48. 37999	
49. GFM		50. 37999	

FUZE XMS81E1	9219774	GFM	0369	NCI-3-38-1	4120
FUZE XMS81E1	9219774	GFM	0469	NCI-3-38-2	33879
22. DISPOSITION					
23. GOVERNMENT INSPECTOR					
a. TYPED NAME		b. SIGNATURE		c. DATE SIGNED	
ELMER L. NEESE				08/11/69	
21. COMPONENTS (CONT)					
a. COMPONENT	b. DRAWING NO.	c. MANUFACTURER	d. DATE	e. LOT	f. QTY
FUZE XMS81E1	9219774	GFM	UNK	1-17	UNK
FUZE XMS81E1	9219774	GFM	UNK	1-18	UNK
24. REMARKS					
CONTRACT OR ORDER NO: DAAA15-68-C-0662					
MOD P024					
DRAWING & REVISION: DL122-2-6B-8					
CHARGE WT: 455 MG/ROUND					

DD Form 1650

[Exit Back To Start]

Any Questions or Comments
email Bret Hobbs

OPTIONAL FORM 35 (7-80)

FAX TRANSMITTAL		# of pages = 2
To: Ed White worth	From: Kerry Kelly Doc	
Department: FF A-02	Phone #: 783-7535	
Fax #: 788-1892	Fax #: 783-7124	
HEN 7340-01-317-7388		5000-101
GENERAL SERVICES ADMINISTRATION		

ATTACHMENT

E

**Photograph of Loaded XM651 E1
Cartridge from Lot NCI 3-38-1**

AMM LOT

3-38-1

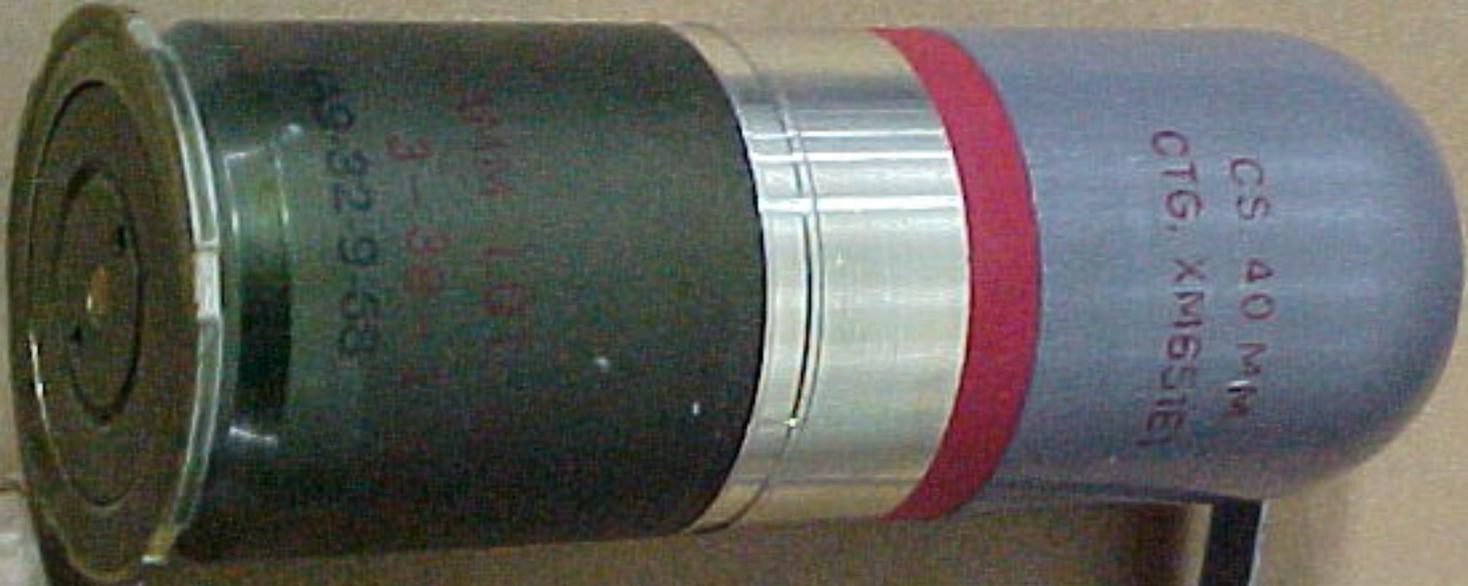
HA9-32-9-68

CS. 40 MM
CTG. XM651E1

AMM LOT
3-31-02
HA9-32-9-03

CS 40 MM
CTG. XM151E1

91M 101
2-38
9-32-9-58



CS. 40 M
CTG. XME

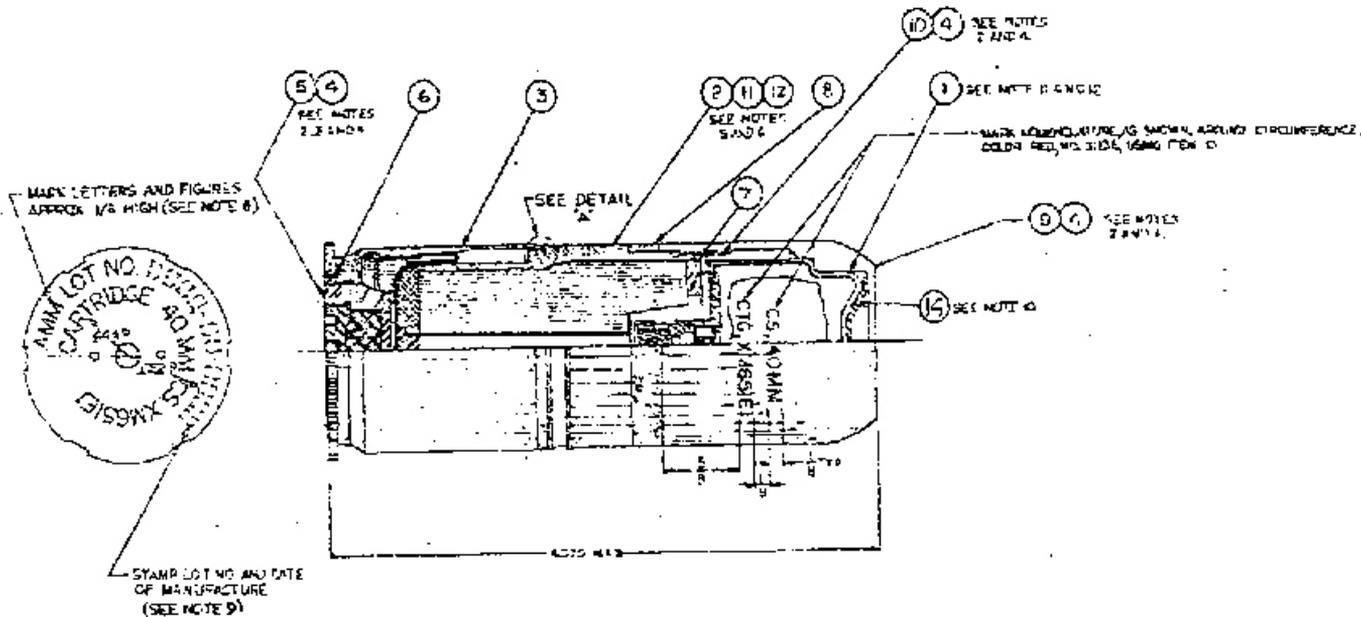
AMIN
3 - 20

M118 HA9-32

ATTACHMENT

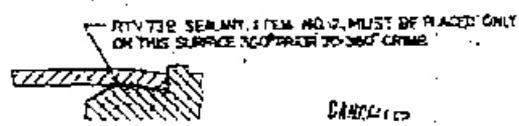
F

Diagram 122-2-6



NOTES CONTINUED:
 3. MARK LETTERS AND FIGURES, GOLD RED, NO. 3134, USING ITEM 13.
 4. LOT NO. AND DATE OF MANUFACTURE TO BE STAMPED AT TIME OF ASSEMBLY OF BOUND.
 5. ASSEMBLE ITEM 11 INTO ITEM 9, USING ITEM 10 AND ALSO TO HARDEN BEFORE MOUNT ASSEMBLY (OPTIONAL).
 6. PRIOR TO ASSEMBLING ITEM 1 INTO ITEM 3 COAT MATING SURFACES OF ITEM 1 AND ITEM 3 WITH ITEM 5.
 7. THE AMOUNT OF ITEM 5 USED IN NOTE 6 WILL BE DETERMINED AT ASSEMBLY TO ASSURE THAT 80% ± 2% OF THE MATING SURFACES ARE COATED.

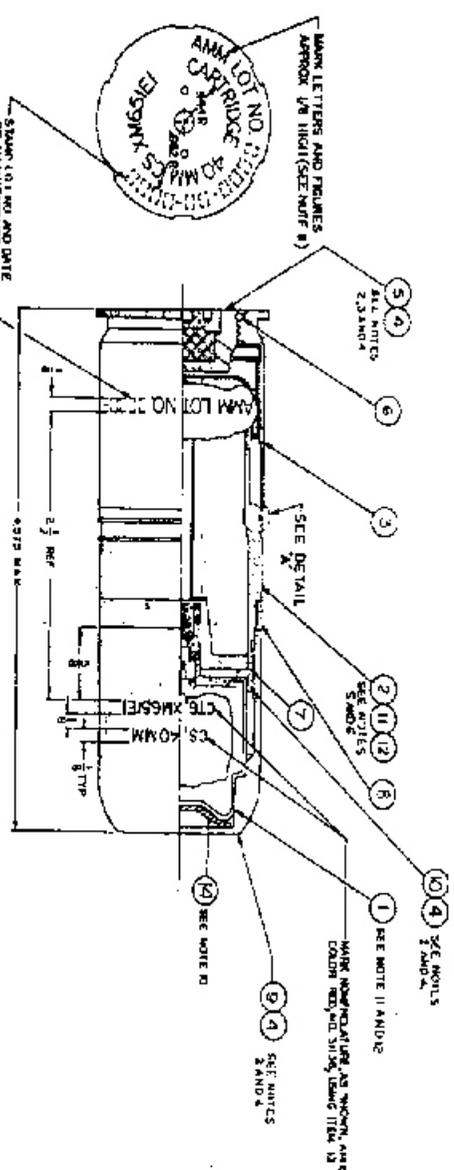
- 1. THE FOLLOWING ARE MANUFACTURING DEFECTS:
- 2. CRACKS
- 3. CHIPS
- 4. DISCOLORATION
- 5. DEFORMATIONS
- 6. DIMENSIONAL DEFICIENCIES
- 7. FINISH DEFICIENCIES
- 8. IMPROPER TREATMENT
- 9. MATERIAL DEFICIENCIES
- 10. MOUNTING DEFICIENCIES
- 11. OTHER DEFECTS



CANCELLED

Fred Schottery - Ardec

CONFIDENTIAL
 CANCELLED



MARK LETTERS AND FIGURES APPROX. 1/8 HIGH (SEE NOTE 8)

AMM LOT NO. AND DATE OF MANUFACTURE (SEE NOTE 9)

MARKING READING IN THIS AREA IS OPTIONAL. SEE NOTES 8 AND 9. ALTERNATE MARKING: AMM LOT NO. 1234567890 DATE 1/20/99

NOTES CONTINUED:
 1 MARK LETTERS AND FIGURES (EXCERPT FROM FIG. NO. 5110, USE, ITEM 10, CROSS-REFERABLE ITEM IN FIG. 5110) SHALL BE MARKED TO INDICATE THE AMM LOT NO. AND DATE OF MANUFACTURE TO BE EXACTLY AT THE POINT OF MANUFACTURE. THE AMM LOT NO. IS NOT TO BE MARKED IN ANY OTHER MANNER. THE DATE OF MANUFACTURE IS TO BE MARKED IN THE MANNER SHOWN IN FIG. 5110. THE AMM LOT NO. AND DATE OF MANUFACTURE SHALL BE MARKED IN THE MANNER SHOWN IN FIG. 5110. THE AMM LOT NO. AND DATE OF MANUFACTURE SHALL BE MARKED IN THE MANNER SHOWN IN FIG. 5110. THE AMM LOT NO. AND DATE OF MANUFACTURE SHALL BE MARKED IN THE MANNER SHOWN IN FIG. 5110.

1. THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6.

2. THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6.

3. THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6.

4. THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6.

5. THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6.

6. THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6.

7. THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6.

8. THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6.

9. THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6.

10. THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6.

THIS DRAWING IS INCOMPLETE WITHOUT LIMIT 2-2-6

REV	DATE	BY	CHKD	DESCRIPTION
1	10/10/99	J. J. [Signature]	[Signature]	INITIAL RELEASE
2	10/10/99	J. J. [Signature]	[Signature]	INITIAL RELEASE

CONFIDENTIAL

CHEMICAL CORP.
 CARTRIDGE, 40MM, CS,
 XMMSHEI

81361 D D122-2-6

REV	DATE	BY	CHKD	DESCRIPTION
A	10/10/99	J. J. [Signature]	[Signature]	INITIAL RELEASE
B	10/10/99	J. J. [Signature]	[Signature]	INITIAL RELEASE
C	10/10/99	J. J. [Signature]	[Signature]	INITIAL RELEASE
D	10/10/99	J. J. [Signature]	[Signature]	INITIAL RELEASE
E	10/10/99	J. J. [Signature]	[Signature]	INITIAL RELEASE
F	10/10/99	J. J. [Signature]	[Signature]	INITIAL RELEASE

- NOTE:
1. THE FOLLOWING ARE MANDATORY WHEN SPECATED BY
 - REMOVE BURRS
 - BREAK SHARP EDGES .010 MAX
 - FILETS .010 MAX R
 - ALL OVER EXCEPT AS NOTED, SURFACE ROUGHNESS, MIL-STD-10
 - DIMENSIONS APPLY AFTER PLATING
 - DIMENSIONS AND TOLERANCES SHALL BE INTERPRETED IN ACCORDANCE WITH MIL-STD-4
 - THREAD DIMENSIONS AND DERIVATIONS SHALL BE INTERPRETED IN ACCORDANCE WITH HANDBOOK FOR AND ALL-STD, RESPECTIVELY
 - WELDING SYMBOLS SHALL BE INTERPRETED IN ACCORDANCE WITH JAN-STD-15
 - TOLERANCES ON STOCK MATERIAL SIZES SHALL BE AS SPECIFIED IN APPLICABLE SPECIFICATIONS

2. APPLY A LIGHT COATING OF ITEM NO. 4 TO THREADS OF ITEM NO. 5, 9, AND 10.
3. SURFACE OF PRIMER, WHEN MOUNTED IN ITEM NO. 5, SHALL NOT EXTEND MORE THAN .008 OR BE UNDER FLUSH BY MORE THAN .012 WITH RESPECT TO REAR FACE OF ITEM NO. 3.
4. TIGHTEN ITEM NO. 10 TO ITEM NO. 9, ITEM NO. 9 TO ITEM NO. 2, AND ITEM NO. 4 TO ITEM NO. 3 TO 60 IN. LBS (CAUTION MUST BE TAKEN THAT THE COATING, ITEM NO. 4, IS NOT PERMITTED TO DRY PRIOR TO TIGHTENING THEREFORE PREVENTING A TRUE TORQUE READING).
5. APPLY RTV732 SEALANT (ITEM NO. 12) TO CONTACTING SURFACES OF ITEM NO. 2 AND ITEM NO. 3 REMOVE ALL TRACES OF CEMENT FROM EXTERNAL SURFACES OF ITEM NO. 2 AND 3 AFTER ASSEMBLY (SEE DETAIL #1).
6. INVESTIGATE MAKE OF ITEM NO. 2 WITH ITEM NO. 11 BEFORE ASSEMBLING TO ITEM NO. 3 (ADVISORY)
7. FOR TEST SEE PURCHASE DESCRIPTION NO. 100-131-826.

CAPTRIDGE, 40MM, CS,	
KMG5HE1	
81361	D
DN22-2-6	

SHEET 2 OF 3

TES CONTINUED:

- 8 MARK LETTERS AND FIGURES, COLOR RED, NO. 31136, USING ITEM 13.
- 9. LOT NO. AND DATE OF MANUFACTURE TO BE STAMPED AT TIME OF ASSEMBLY OF ROUND.
- 10. ASSEMBLE ITEM 14 INTO ITEM 9, USING ITEM 15 AND ALLOW TO HARDEN BEFORE NEXT ASSEMBLY. (OPTIONAL)
- 11. PRIOR TO ASSEMBLING ITEM 1 INTO ITEM 9 COAT MATING SURFACES OF ITEM 1 AND ITEM 14 WITH ITEM 16.
- 12. THE AMOUNT OF ITEM 16 USED IN NOTE 11 WILL BE DETERMINED AT ASSEMBLY TO ASSURE THAT 60% ± 20% OF THE MATING SURFACES ARE COATED.

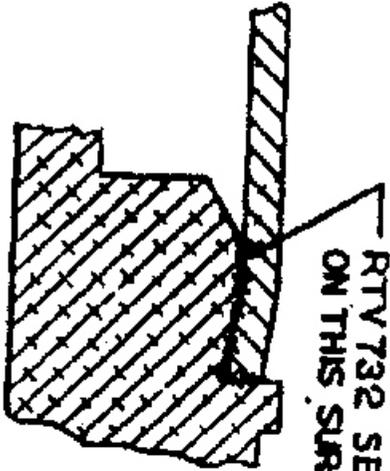
CARTRIDGE, 40MM, CS,	
XM65HE1	
81361	D D122-2-6

SHEET 3 OF 3

- AND 10.
- 3. C MORE THAN .006 OR 32 UNDER

ITEM NO. 4 TO ITEM NO. 3 TO 50 IN. LBS
APPLIED TO DRY PRIOR TO TIGHTENING

BY NO. 2 AND ITEM NO. 3 REMOVE ALL TRACES
OF PREVIOUS MATERIAL



RTV 732 SEALANT, ITEM NO 12, MUST BE PLACED ON
ON THIS SURFACE FOR 360°, PRIOR TO PRESSING PR
ITEM 3 ONTO ITEM 2.

CONFIDENTIAL

THIS DOCUMENT CONTAINS INFORMATION RELATING TO THE NATIONAL DEFENSE OF THE UNITED STATES WHICH IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE BY THE DATE AND THE AUTHORITY LISTED BELOW. IT IS THE POLICY OF THE UNITED STATES GOVERNMENT TO MAKE THIS INFORMATION AVAILABLE TO THE PUBLIC AS SOON AS REASONABLY PRACTICABLE.

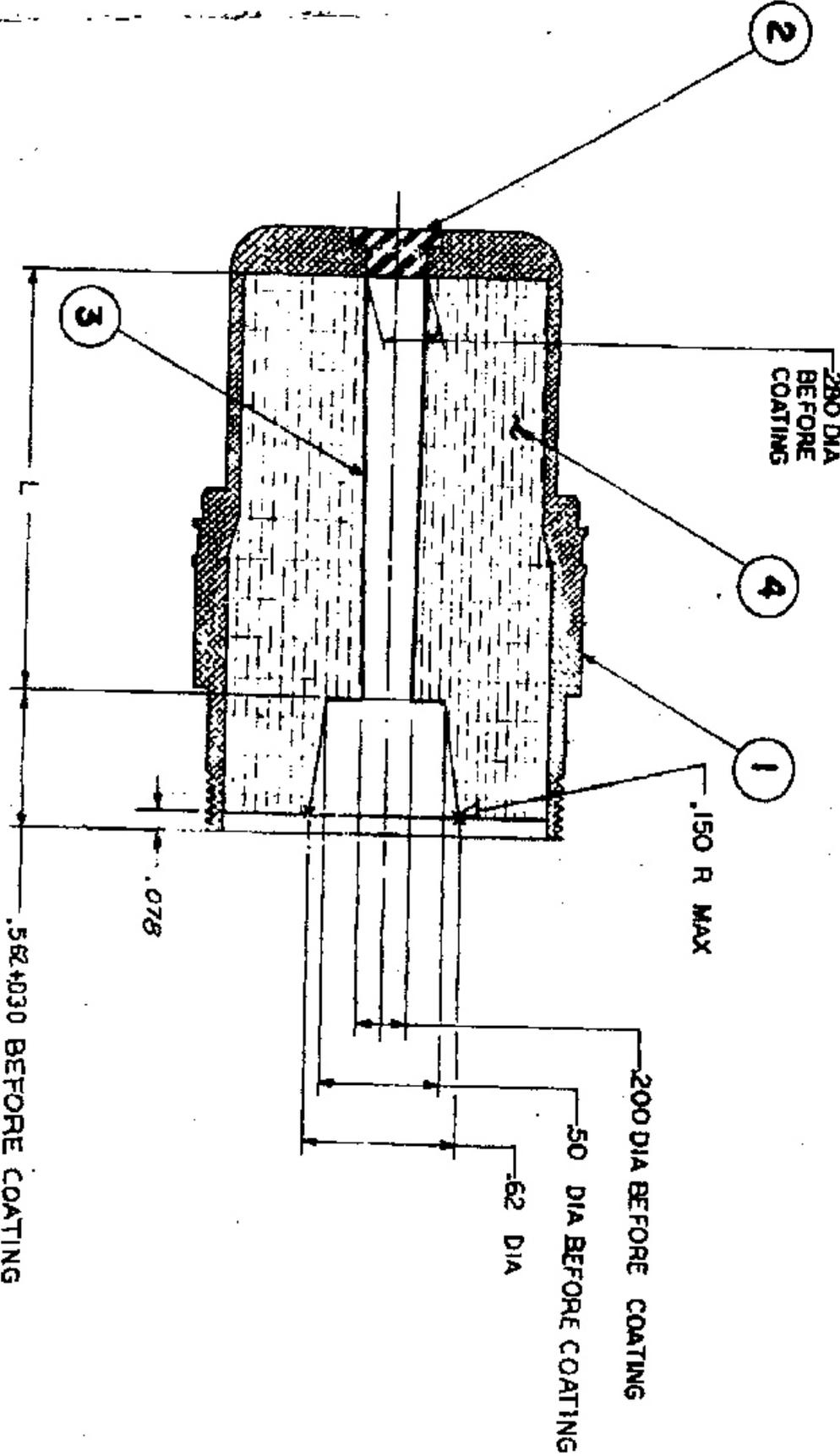
REVISIONS			
LYR	DESCRIPTION	DATE	APPROVED
A	INC E.O. 616-44, 616-45, AND 616-46	23 FEB 68	WJL/ [Signature]
B	INC. E.O. 616-48	28 MARCH 68	CAF/ [Signature]
C	INC. E.O. 616-50	10 MAY 68	CAF/ [Signature]
D	FOR 616-098-002 INC	12 JUL 85	PA6

(a) ALTERNATE
 (b) PURCHASE DESCRIPTION
 (c) EACH BRGD PER 6 CARTRIDGES

LINE	QTY REQD	DRAWING OR PART NO.	NOMENCLATURE	MATERIAL	SPECIFICATION	ITEM NO.
1	1	C122-2-6	IGNITION ASSEMBLY			1
2	1	C122-2-8	BOSS ASS'Y, 40MM, CARTRIDGE			2
3	1	C122-2-17	CASE, ASS'Y, 40MM, CARTRIDGE			3
4	AR	RTY-112	SILICONE RUBBER ADHESIVE/SEALANT, WHITE, GEN ELEC CO.			4
5	1	C122-2-18	HEAD ASSEMBLY			5
6	1	M132013-023	"O" RING			6
7	1	B122-2-14	CUSHION			7
8	1	B122-2-10	BAND			8
9	1	D122-2-4	RETAINER			9
10	1	B122-2-47	WASHER			10
11	AR		GRAPHITE, LUBRICATING, FLAKE		SS-G-859	11
12	AR		SEALANT, RTY-732, DOY CORNING CORP.			12
13			MIDLAND, MICHIGAN			13
14			INK, MARKING STENCIL		1" 558	14
15	1	B122-2-126	FORGED DISK			15
16	AR		CEMENT, DUCO [®] , E.I. DUPONT DE NEMOURS AND CO., WILMINGTON DE, DELAWARE			16
17			NEYLON [®] P, NEYLON CORPORATION, SAFFORD, MASSACHUSETTS			17
18						18
19						19
20	--	B122-2-6	CARTRIDGE, 40MM, CS, XM651E1		2-122-2-6-35	20
21	--		CHEMICAL FILM		MIL-C-8041	21
22	--		ANODIC COATINGS		MIL-A-8526	22
23	--		PRIMER, PRETREATMENT		MIL-P-15320	23
24	--	(a)	PRIMER COATING, LACQUER		MIL-P-11314	24
25	--	(a)	PRIMER COATING, SYNTHETIC		TT-P-804	25
26	--		ENAMEL, LUSTRELESS		TT-E-516	26
27						27
28						28
29	(b)	C122-2-137	CARD, INSTRUCTIONS			29
30						30

APPLICATION NEXT PROJ C122-2-6	GENERAL DATE OF ORDER 25 AUG 1966	DEPT OF THE ARMY U.S. ARMY EDGEWOOD ARSENAL EDGEWOOD ARSENAL, MARYLAND	
	DESIGNED BY [Signature]	CARTRIDGE, 40MM, CS, XM651E1	
	CHECKED BY [Signature]	CODE IDENT NO. 81361	REV. B LM 122-2-6
END ITEM NAME NO. 818	BY ORDER OF [Signature]	SCALE	

THIS DRAWING IS THE PROPERTY OF THE COMPANY. IT IS TO BE KEPT IN CONFIDENCE AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. THE COMPANY ASSUMES NO LIABILITY FOR ANY DAMAGE OR LOSS OF PROFITS, BUSINESS, OR REPUTATION, OR FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING ATTORNEY'S FEES, ARISING OUT OF THE USE OF THIS DRAWING. THE COMPANY ASSUMES NO LIABILITY FOR ANY DAMAGE OR LOSS OF PROFITS, BUSINESS, OR REPUTATION, OR FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING ATTORNEY'S FEES, ARISING OUT OF THE USE OF THIS DRAWING.



BODY ASSEMBLY	
XM65E1 CARTRIDGE	
DATE	REV
81361	C
C122-2-0	

SHEET 1 OF 2



BODY ASSEMBLY
XM65/E1 CARTRIDGE

81361

C

C122-2-8

SHEET 2 OF 2

NOTES:

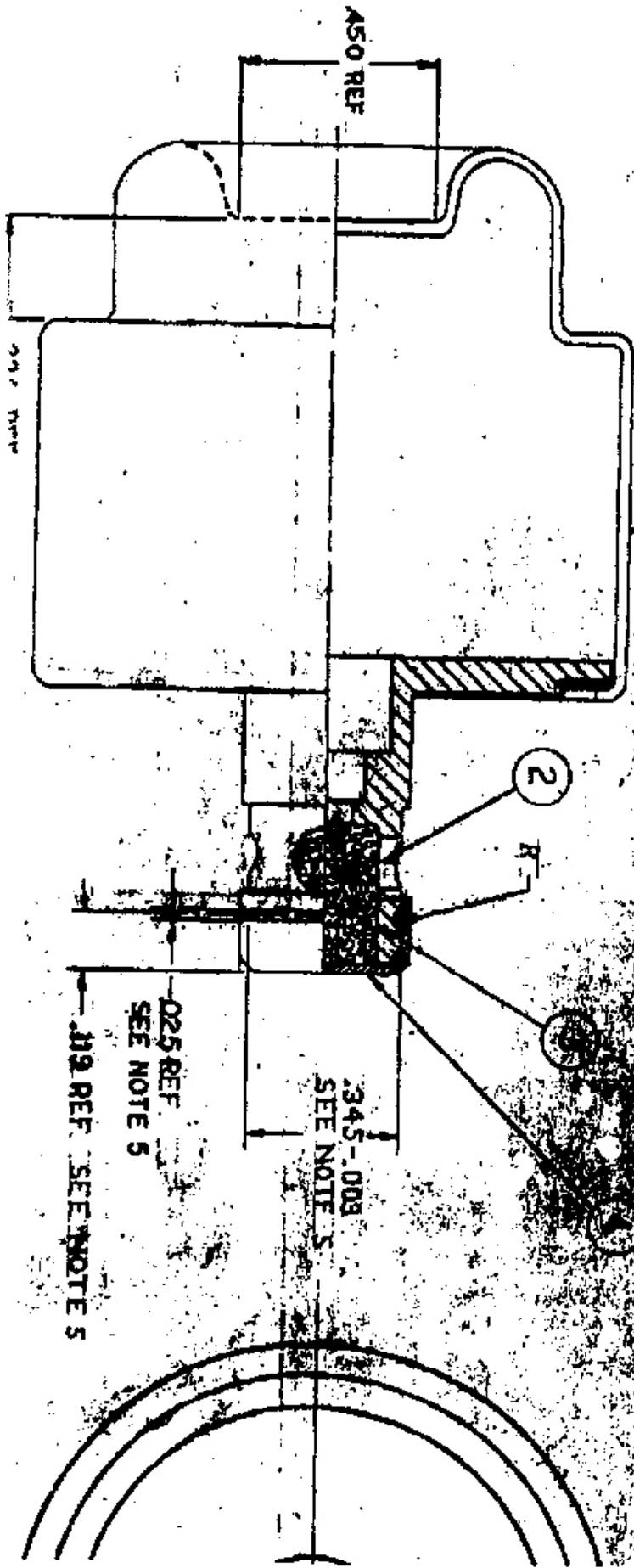
1. THIS DRAWING SHALL BE INTERPRETED IN ACCORDANCE WITH APPLICABLE STANDARDS LISTED IN MIL SPEC MIL-D-1000
2. THE FOLLOWING ARE MANDATORY WHEN INDICATED BY ■
 - REMOVE BURRS BREAK SHARP EDGES .010 MAX
 - FILETS .010 MAX R.
 - $\sqrt{\text{V}}$ ALL OVER, EXCEPT AS NOTED
 - DIMENSIONS APPLY AFTER PLATING
 - TOLERANCES ON STOCK MATERIAL SIZES, SHALL BE AS SPECIFIED IN APPLICABLE SPECIFICATIONS.
3. FITS WITH 53 GRADE OF ITEM NO. 4. CONSULTANTS AT 4000 POUNDS DEAD LOAD (ADVERTOR) FOR IMPROVEMENTS SEE PAGES 2-131-496.
4. GAGE INDICATE SURFACE ALONG LENGTH 1", BOTTOM OF .50 DIA. POZE CAVITY AND TO A MAXIMUM HEIGHT OF 1/8 THICKNESS OF THE TAPERED RINGS OF THE .50 DIA POZE CAVITY WITH ITEM NO. 3. MINIMUM INSIDE DIA OF .209 TAPERED CHANNEL HOLE TO BE .16 DIA AFTER COATING.
5. FOR IMPROVEMENTS SEE PAGES 2-131-496.
6. THIS DRAWING TO BE CONSIDERED BY DRAWING THESE EQUAL DIMENSIONS (ADVERTOR).

REVISIONS			
LTR	DESCRIPTION	DATE	APPRO
A	INC X.O. 616-44 AND 616-46	25 FEB 48	067/1
B	INC EQ. 616-46	28 MAR 65	027/2

*** PURCHASE DESCRIPTION**

LIST OF MATERIALS				
LINE	QTY REQD	DRAWING OR PART NO.	NOMENCLATURE	SPECIFICATION
1		D 122-2-84	BODY	
2		B 122-2-81	PLUG, BASE	
3	--	B 143-7-3	STARTER MIXTURE VI	
4	--	C 143-14-8	CS, IRRITANT MIXTURE	
5				
6	--		CHEMICAL FINISH	MIL-C-5541
7	--	C 122-2-8	BODY ASSEMBLY XM651E1 CARTRIDGE	* 196-131-836
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

APPLICATION SICRT ARMY		DATE OF DRAWING 26 AUG 1966		DEPT OF THE ARMY U.S. ARMY EDGEWOOD ARSENAL EDGEWOOD ARSENAL, MARYLAND	
DR. 122-2-8		MPD	MPD	BODY ASSEMBLY, XM651E1 CARTRIDGE	
		<i>Walt R. Long</i>			
		<i>PE Jester</i>			
DWD ITEM CODE NO.		APPROVED BY NAME OF DCD		CODE BODY NO.	SIZE
616		<i>Thomas ...</i>		81361	B
				LM 122-2-8	
				SCALE	SHEET



IGNITION ASSEMBLY

81361 C C122-2-5

SHEET 1 OF 2

1

2

R

3

4

5

IGNITION ASSEMBLY	
81361	CIP22-2-5

SHEET 2 OF 2

NOTES:

1. THIS DRAWING SHALL BE INTERPRETED IN ACCORDANCE WITH APPLICABLE STANDARDS LISTED IN MIL SPEC MIL-D-1000
2. THE FOLLOWING ARE MANDATORY WHEN INDICATED BY IN
 - REMOVE BURGERS BREAK SHARP EDGES .010 MAX
 - FILLETS .010 MAX R.
 - ∇ ALL OVER, EXCEPT AS NOTED
 - DIMENSIONS APPLY AFTER PLATING
 - TOLERANCES ON STOCK MATERIAL SIZES SHALL BE AS SPECIFIED IN APPLICABLE SPECIFICATIONS.
3. PLACE ITEM NO.3 FLUSH INTO ITEM NO.1.
4. LOAD ITEM NO.3 WITH 3.0-.5 GRAINS OF ITEM NO.2.
5. PRESS ITEM NO.4 ON ITEM NO.1; CRIMP 360° ACCORDING TO DIMENSIONS. ITEM NO.4 SHALL BE IN INTIMATE CONTACT WITH ITEM NO.1 AFTER CRIMPING.

		DEPT OF THE ARMY U. S. ARMY EDGEWOOD ARSENAL EDGEWOOD ARSENAL, MARYLAND		81361	DL 122-2-6	F
		DATE (REV) 14 APR 65		CODE IDENT NO.	SHEET 1 OF 3 SHEETS	REV.
SPECIFICATION	DESIGNATION	USED ON	END ITEM CODE NO.	ITEM NOMENCLATURE:		
GOVT	195-131-835	XM 651 E1	6'E	CARTRIDGE, 40MM, CS, XM651E1		
CONTR						
CONTRACT NO.						
DWG SIZE	CODE IDENT	DOCUMENT IDENT NUMBER	REV	DOCUMENT NOMENCLATURE		LINE NO.
				SUBORDINATE DATA LIST		1
		DL 122-2-12		HANDCLEANER FOR 40mm CARTRIDGE		2
						3
		DL122-2-3	B	BODY ASSEMBLY, XM651E1 CARTRIDGE		4
		DL122-2-17	C	CASE ASSEMBLY, XM651E1 CARTRIDGE		5
	19203	8799925	7-1-65	PRIMER, PERCUSSION M42 ASSEMBLY PARTS LIST		6
	19203	9219774	10-3-66	FUZE, P. D. XM651E1 PARTS LIST		7
D		D122-2-4	B	RETAINER		8
C		C122-2-5	C	IGNITION, ASSEMBLY		9
B		LM122-2-5	A	IGNITION, ASSEMBLY		10
D		D122-2-6	E	CARTRIDGE, 40MM, CS, XM651E1		11
B		LM122-2-5	C	CARTRIDGE, 40MM, CS, XM651E1		12
						13
						14
B		B122-2-10	C	BAND		15
B		B122-2-12	D	BAG, POWDER		16
B		B122-2-13	A	CAP		17
B		B122-2-14	A	CUSHION		18
						19
						20
C		C122-2-18	C	HEAD ASSEMBLY		21
C		C122-2-25	B	PLUG		22
						23
						24
C		C122-2-37	B	HEAD, CASE, CARTRIDGE		25
B		B122-2-38	B	CUP, PROPELLANT		26
B		B122-2-47	D	WASHER		27
C		C122-2-57	---	PROTECTIVE COVER		28
B		B122-2-126	A	FORMED DISK		29
C		C122-2-127	A	CARD, INSTRUCTIONS (SHEET 1)		30
C		C122-2-127	B	CARD, INSTRUCTIONS (SHEET 2)		31
C		C122-2-128	---	MARKING DRAWING - SHIPPING CONTAINER FOR		32
				CARTRIDGE, 40mm., CS, XM651E1 (SHEET 1)		33
C		C122-2-128	---	MARKING DRAWING - SHIPPING CONTAINER FOR		34
				CARTRIDGE, 40mm., CS, XM651E1 (SHEET 2)		35
C		C122-2-128	---	PALLETIZATION, CARTRIDGE, 40mm., CS, XM651E1		36
						37
C		C146-2-2	D	IGNITION MIXTURE 111 (W/E)		38
						39

CONTINUATION SHEET

81361

DL122-2-6

F

CODE IDENT NO.

SHEET 2 OF 3 SHEETS

REV.

DWG SIZE	CODE IDENT	DOCUMENT IDENT NUMBER	REV	DOCUMENT NOMENCLATURE	LINE NO.
				SPECIFICATIONS AND STANDARDS	1
	19203	MIL-P-50206	1	PROPELLANT, M9, FOR USE IN 40 MM CARTRIDGES	2
	19203	ADD-55-1		ADDENDUM PROPELLANT AND PROPELLANT, IGNITION TO PD, PA-PD-55	3
		PD 196-131-635	A	CARTRIDGE, 40MM, CS, XM651E1	4
			a.	PLASTIC SHEET: VINYL CHLORIDE POLYMER AND VINYL CHLORIDE-VINYL ACRYLATE COPOLYMER, RIGID	5
				VINYL ACRYLATE COPOLYMER, RIGID	6
		Z-P-378	b	PLASTIC	7
			c	ACETONE, TECHNICAL	8
		QQ-A-200	c	ALUMINUM ALLOY, BAR, ROD, SHAPES, TUBE, AND WIRE, EXTRUDED	9
				AND STRUCTURAL SHAPES, GENERAL SPECIFICATIONS FOR	10
		QQ-A-200/1	c	ALUMINUM ALLOY BAR, ROD, SHAPES, TUBE AND WIRE EXTRUDED	11
				2024	12
		QQ-A-225	b	ALUMINUM ALLOY BAR, ROD, WIRE OR SPECIAL SHAPES;	13
				ROLLED, DRAWN, OR COLD FINISHED; GENERAL	14
				SPECIFICATION FOR	15
		QQ-A-225/6	C	ALUMINUM ALLOY BAR, ROD AND WIRE; ROLLED, DRAWN	16
				OR COLD FINISHED, 2024	17
		QQ-A-250	d	ALUMINUM AND ALUMINUM ALLOY PLATE AND SHEET GENERAL	18
				SPECIFICATION FOR	19
		QQ-S-637	-----	STEEL BAR, CARBON, COLD FINISHED	20
		QQ-A-250/11	d	ALUMINUM ALLOY 6061 PLATE AND SHEET	21
		QQ-B-613	C	BRASS, LEADED AND NON-LEADED; FLAT PRODUCTS	22
		QQ-F-416	b	PLATING, CADMIUM	23
		RR-S-266	d	SIEVE TEST	24
		SS-G-659	a	GRAPHITE DRY	25
		TT-E-516	---	ENAMEL, LUSTRELESS, QUICK-DRYING STYRENATED	26
				ALKYD TYPE	27
		TT-I-558	c	INK, MARKING STENCIL, OPAQUE, FOR NONPOROUS	28
				SURFACES	29
		TT-P-375	----	PIGMENT, INDIAN RED AND BRIGHT RED DRY	30
		TT-P-664	b	PRIMER COATING, SYNTHETIC, RUST-INHIBITING,	31
				LACQUER-RESISTING	32
		UU-P-622	i	PAPER, BOOK	33
		MIL-W-244	A(2)	NITROCELLULOSE	34
					35
		MIL-Z-00399	B	ZIRCONIUM, POWDERED	36
		MIL-B-1176	---	BOARD, COMPOSITION, WATER-REPLEANT, SOLID.	37
		MIL-D-1000	----	DRAWINGS, ENGINEERING AND ASSOCIATED LISTS	38
		MIL-C-5541	A	CHEMICAL FILMS AND CHEMICAL FILM MATERIALS FOR	39
				ALUMINUM AND ALUMINUM ALLOYS	40
		MIL-S-6855	B(3)	SYNTHETIC RUBBER SHEET, STRIPS, MOLDED OR	41
				EXTRUDED SHAPES	42

CONTINUATION SHEET

81361

DL 122-2-6

F

CODE IDENT NO.

SHEET 3 OF 3 SHEETS

REV.

M
F
M
M

DWG SIZE	CODE IDENT	DOCUMENT IDENT NUMBER	REV	DOCUMENT NOMENCLATURE	LINE NO.
		MIL-A-8625	B	ANODIC COATINGS, FOR ALUMINUM AND ALUMINUM ALLOYS	1
					2
					3
		MIL-P-11114	C	PRIMER COATING; LACQUER, RUST INHIBITING	4
		MIL-T-13405	C	TITANIUM POWDER	5
		MIL-V-13750	A (1)	VARNISH, PHENOL-FORMALDEHYDE, CLEAR AND	6
				ALUMINUM PIGMENTED	7
		MIL-P-15328	B (1)	PRIMER, PRETREATMENT	8
					9
					10
		MIL-S-46180	A (1)	SEALING COMPOUND, GASKET, HYDROCARBON FLUID AND	11
				WATER RESISTANT	12
		MIL-P-46213	A (1)	PRIMER, PERCUSSION, M42, PARTS FOR	13
					14
					15
					16
					17
		MIL-STD-9	A	SCREW THREAD CONVENTIONS AND METHODS OF	18
				SPECIFYING	19
		MIL-STD-171	B (1)	FINISHING OF METAL AND WOOD SURFACES	20
					21
		FED-STD-595	(2)	COLORS	22
					23
					24
					25
		MS 29513	C	PACKING, PREFORMED, HYDROCARBON FUEL RESISTANT	26
				"O" RING	27
					28
					29
					30
					31
					32
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REVISIONS			
LYR	DESCRIPTION	DATE	APPROVED
A	INC E.O. 616-44, 616-45, AND 616-46	23 FEB 85	WJL/ [Signature]
B	INC. E.O. 616-48	28 MARCH 85	WJL/ [Signature]
C	INC. E.O. 616-50	10 MAY 85	WJL/ [Signature]
D	FOR 616-098-002 INC	12 JUL 85	WJL/ [Signature]

(A) ALTERNATE
 (B) PURCHASE DESCRIPTION
 (C) EACH RING FOR 6 CARTRIDGES

LINE	QTY REQD	DRAWING OR PART NO.	NOMENCLATURE	MATERIAL	SPECIFICATION	ITEM NO.
1	1	C122-2-6	IGNITION ASSEMBLY			1
2	1	C122-2-8	BOSS ASS'Y, 40MM, CARTRIDGE			2
3	1	C122-2-17	CASE, ASS'Y, 40MM, CARTRIDGE			3
4	AR	RTY-112	SILICONE RUBBER ADHESIVE/SEALANT, WHITE, GEN ELEC CO.			4
5	1	C122-2-18	HEAD ASSEMBLY			5
6	1	M132013-023	"O" RING			6
7	1	B122-2-14	CUSHION			7
8	1	B122-2-10	BAND			8
9	1	D122-2-4	RETAINER			9
10	1	B122-2-47	WASHER			10
11	AR		GRAPHITE LUBRICATING, FLAKE		SS-G-859	11
12	AR		SEALANT, RTY-732, DOY CORNING CORP.			12
13			MIDLAND, MICHIGAN			13
14			INK, MARKING STENCIL		1 558	14
15	1	B122-2-136	FORGED DISK			15
16	AR		CEMENT, DUCO, S.I. DUPONT DE NEMOURS AND CO., WILKINSON 06, WILMARE			16
17	AR		NEYLON P, NEYLON CORPORATION, SAFFORD, MASSACHUSETTS			17
18						18
19						19
20	--	B122-2-6	CARTRIDGE, 40MM, CS, XM651E1		2-122-2-6-35	20
21	--		CHEMICAL FILM		MIL-C-8041	21
22	--		ANODIC COATINGS		MIL-A-8526	22
23	--		PRIMER, PRETREATMENT		MIL-P-15320	23
24	--	(a)	PRIMER COATING, LACQUER		MIL-P-11314	24
25	--	(a)	PRIMER COATING, SYNTHETIC		TT-P-804	25
26	--		ENAMEL, LUSTRELESS		TT-E-516	26
27						27
28						28
29	(b)	C122-2-137	CARD, INSTRUCTIONS			29
30						30

APPLICATION NEXT PROJ C122-2-6	GENERAL DATE OF REVISION 25 AUG 1966	DEPT OF THE ARMY U.S. ARMY EDGEWOOD ARSENAL EDGEWOOD ARSENAL, MARYLAND
DESIGNED BY [Signature]	CHECKED BY [Signature]	CARTRIDGE, 40MM, CS, XM651E1
APPROVED BY [Signature]	BY ORDER OF [Signature]	
END ITEM SERIAL NO. 818	CODE IDENT NO. 81361	ISSUE B LM 122-2-6

ATTACHMENT

G

**Technical Manual TM 31310-243-10
Operator's Manual CTG-40-MM
Tactical CS, M651 January 1975**

TM 3-1310-243-10

TECHNICAL MANUAL

OPERATOR'S MANUAL,
CARTRIDGE, 40-MM:
TACTICAL CS, M651
(NSN 1310-00-849-2083)

HEADQUARTERS,
DEPARTMENT OF THE ARMY

JANUARY 1975

CHAPTER	2. OPERATING INSTRUCTIONS	Paragraph	Page
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Section I. OPERATING PROCEDURES

Loading and unloading, firing and targets	2-1	11
Failure to fire	2-2	12

II. AMMUNITION

Identification	2-3	14
Safety precautions	2-4	14
Preparing for firing	2-5	16

Appendix A. REFERENCES		17
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CHAPTER 1 INTRODUCTION

Section I. GENERAL

1-1. Purpose and Scope
This manual is for your use in operating and maintaining the M651 tactical CS 40-mm cartridge.

1-2. Accidents, Malfunctions, and Forms

a. Accidents involving injury to personnel or damage to material will be reported as specified in AR 385-40.

b. Accidents or malfunctions in combat or training will be reported as specified in AR 75-1.

c. Maintenance forms and records are explained in TFM 38-750.

1-3. Recommending Improvements

You can help to improve this manual by recommending improvements. Mail your comments to Commander, Edgewood Arsenal, Attn: SAREA-DE-ET, Aberdeen Proving Ground, Md 21010, using DA Form 2028 (Recommended Changes to Publications and Blank Forms) or a letter. A reply will be sent direct to you.

1-4. Use

Your M651 cartridge can be used in combat against any target vulnerable to its CS agent. Fire the cartridge from the M79 grenade launcher or the M203 grenade launcher which attaches to the M16A1 rifle. This cartridge is especially effective when fired into an enclosed area. The projectiles will penetrate window glass or up to 19 millimeters (3/4 inch) thick pine wood at 200 meters (656 feet) and release CS after penetration. The projectiles will also function against other materials such as earth, gravel, brush, sandbags, and bamboo. You can engage targets at ranges up to 400 meters (1312 feet).

Section II. DESCRIPTION AND DATA

1-5. Description

a. Cartridge. The M651 cartridge (fig. 1-1) is similar in appearance to other 40-mm cartridges but has a flat nose. Two ridges act as projectile rotating bands when the round is fired. The cartridge case contains a percussion primer and has six equally spaced notches located around the cartridge case base.

6

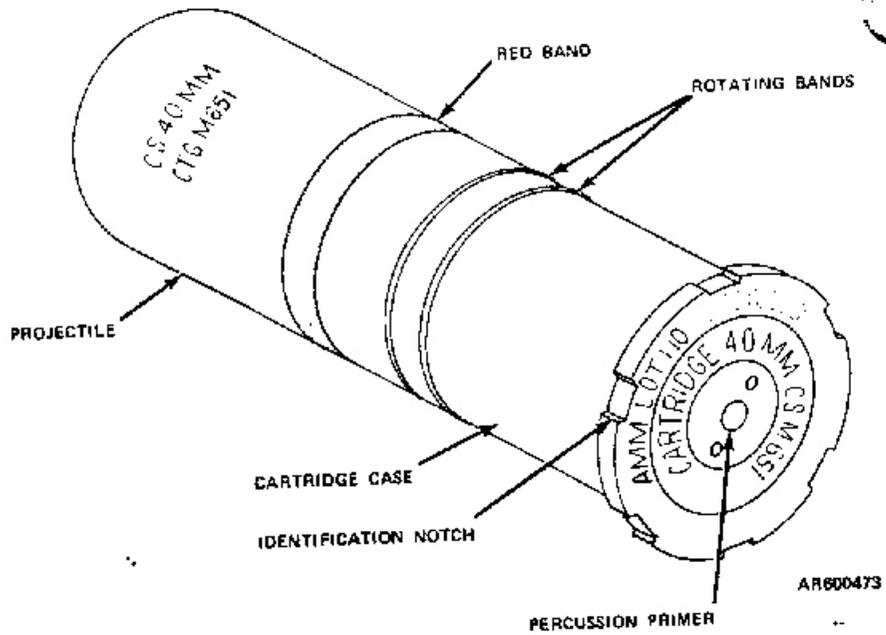


Figure 1-1. M651 cartridge exterior view.

7

b. *Packaging.* Six cartridges are packed in a bandolier. The bandolier (fig. 1-2) consists of six molded cups with flaps and a web carrying strap.

c. *Packing.* Your bandolier is packed in one compartment of a four-compartment fiberboard box. An instruction card is packed with each bandolier. A filled fiberboard box containing four bandoliers (24 cartridges) is wrapped in vapor barrier material and is packed in a wirebound wood box.

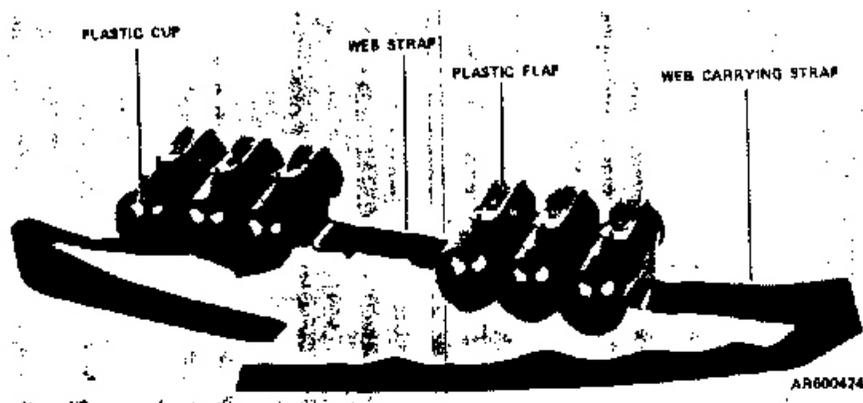


Figure 1-2. Bandolier.

CHAPTER 2 OPERATING INSTRUCTIONS

Section 1. OPERATING PROCEDURES

CAUTION

Keep your powder dry. Firing the M651 cartridge into water will increase the dud rate and decrease the amount of CS cloud disseminated. Immersion of unpacked M651 cartridges in water may cause the cartridges to misfire.

2.1 Loading and Unloading, Firing and Targets

a. Loading and Unloading.

(1) Load and unload the M651 cartridge from the M79 grenade launcher in accordance with procedures outlined in TM 9-1010-205-10.

(2) Load and unload the M651 cartridge from the M203 grenade launcher in accordance with procedure outlined in TM 9-1010-221-10.

b. Firing. Make sure you carry your field protective mask when firing the M651 cartridge. The M651 cartridges are not explosive rounds; however, a malfunctioning projectile may explode upon target impact. Adequate protection should be afforded friendly troops in the immediate vicinity of the target. Make sure that someone informs friend-

1-6. Tabulated Data (approximate)

Length of round 11 cm (4 1/4 in)
Caliber 40-mm
Weight of round 282 grams (10 oz)
Length of projectile 10 cm (4 in)
Weight of projectile 205 grams (7 1/4 oz)
Type of filling CS-pyrotechnic mixture
Weight of filling 53 grams (2 oz)
Maximum accurate range 200 meters (656 ft)
Maximum range 400 meters (1312 ft)
Fuze arming distance 10 to 30 meters (32.8 to 98.4 ft)
Burning time 20 to 30 sec
National Stock Number (NSN) 1310-00-849-2063

ly personnel to wear their masks to avoid temporary irritation from the CS cloud which will result from the use of the M651 cartridge.

c. Targets. When firing into thinly constructed or easily penetrable buildings, the projectile should enter the building at a point close to the ground so that the munition does not pass through the building before functioning. When used against personnel in the open, the point of impact should be upwind of the target area.

2.2. Failure to Fire

Any time a launcher fails to fire an M651 cartridge, assume a hangfire has occurred and observe the procedures listed below until the round has been fired or removed from the launcher.

a. Keep the launcher aimed at the target and keep all personnel clear of the muzzle.

b. Wait 30 seconds, open the breech to recock the weapon, and examine the percussion primer (fig. 1-1) to see if it has been dented. If the percussion primer has not been dented, the firing mechanism of the weapon may be at fault. The round may be reloaded and fired after the cause of failure to fire has been corrected.

17

c. If the percussion primer has been dented, attempt to fire the round again. If the round fails to fire, consider the round a misfire.

d. Wait 30 seconds and then remove the round from the launcher.

e. After the round is removed from the launcher, keep the round separate from other ammunition. If it is determined that the round is faulty, keep it separate from other ammunition and notify Explosive Ordnance Disposal (EOD) personnel for disposal.

NOTE

A hangfire is a temporary failure or delay in the action of a primer, igniter or propelling charge. For a few seconds it cannot be distinguished from a complete failure or misfire.

NOTE

A misfire is the failure of a primer or the propelling charge of a projectile to function wholly or in part.

NOTE

A dud is an explosive munition which has not been armed as intended or which fails to explode after being armed.

18

Section II. MAINTENANCE

2.3. Identification

a. *Cartridge.* The base of each cartridge case is marked with the nomenclature and ammunition lot number as shown in figure 1-1. The 1/4-inch wide red band on the gray projectile indicates that the CS filling is a nonpersistent-effect irritant agent. The cartridge nomenclature is also marked in red on the projectile.

NOTE

The ammunition lot number and nomenclature may be marked on the side of the cartridge case, instead of on its base.

b. *Packing Box.* The wood packing box is marked with nomenclature, weight, cubic feet, and National Stock Number. The box is also marked on diagonally opposite edges with a red stripe and a brown stripe on a gray background. The red stripe signifies that the box contains a nonpersistent-effect irritant agent. The brown stripe signifies a low explosive.

2.4. Safety Precautions

a. Cartridges must be free of sand, mud, grease, moisture, ice or other foreign matter when loaded into an M79 grenade launcher or M203 grenade launcher attached to an M16A1 rifle.

b. A damaged, corroded, or separated cartridge shall not be fired. Friendly personnel must never be immediately forward of the muzzle of a launcher.

c. Cartridges shall not be dropped. If the cartridge accidentally functions, the cartridge-case and/or projectile will cause injury to personnel in its path.

d. The CS cloud is irritant in nature and will temporarily incapacitate unmasked personnel. Make sure that masks are worn by the firer and friendly troops who may be exposed to the CS cloud either in enclosed areas or downwind of the impact area.

e. Any time a cartridge fails to fire, keep the muzzle end of the launcher on target. Keep all friendly personnel clear of the muzzle end of the launcher.

f. Always wait 30-seconds before unloading a cartridge that has failed to fire.

g. Refer any damaged or misfired ammunition to Explosive Ordnance Disposal (EOD) personnel.

h. Do not handle fired projectiles. Notify Explosive Ordnance Disposal (EOD) personnel of the quantity and location of projectiles.

1. When these cartridges, take care to avoid being hit by projectiles or cartridges which may be propelled through the air. The M651 will cause injury to personnel in its path.
- f. The M651
- g. Always wear old protective mask.
- 2.5. *Preparing for*
 - a. Open the top of the wood box and remove the vapor-barrier and fiberboard box.
 - b. Remove the vapor-barrier, open the top of the fiberboard box, and remove the bandolier with six cartridges and instruction card.
 - c. Fit the bandolier in a carrying position to suit the user.

Unfired cartridges in packing boxes or to Repackaged cartridgequent firings, so the kept in a minimum.

returned to their original suitable packing boxes. he used first in subsequent of open boxes will be

NOTE

**APPENDIX A
REFERENCES**

AR 79-1	Malfunctions Involving Ammunition and Explosives, Reports Control/Symbol AMC-132 (MIN)
AR 310-25	Dictionary of United States Army Terms (Short Title: AD)
AR 310-50	Authorized Abbreviations and Brevity Codes
AR 385-40	Accidents Reporting and Records
AR 385-63	Regulations for Firing Ammunition for Training, Target Practice and Combat
FM 25-31	40-mm Grenade Launchers M203 and M79
TM 9-1005-249-10	Operator's Manual M16A1 Rifle
TM 9-1010-205-10	Operator's Manual 40-mm Grenade Launcher M79 (1010-00-691-1382)
TM 9-1010-205-24	Organizational, Direct Support and General Support Maintenance Manual Including Repair Parts and Special Tools List for 40-mm Grenade Launcher M79 (1010-00-691-1382)
TM 9-1010-221-10	Operator's Manual 40-mm Grenade Launcher M203
TM 9-1300-306	Ammunition and Explosives Standards
TM 38-750	The Army Maintenance Management Systems (TAMMS)

ATTACHMENT

H

**Mil Specs on the M651 E1
Includes the Addendum: Technical Data
Packet (TDP) for the XM 651 E1**



Pursuant to federal law, this record is currently unavailable on the DPS website. You may request a copy of this record and if it is available it will be provided to you in accordance with the Texas Public Information Act, Texas Government Code, Chapter 552. Written requests should be sent to the following address:

DPS Legal Services—Open Records
PO Box 4087
Austin, TX 78773-0001
FAX: (512) 424-5716



ATTACHMENT

I

**Photograph of Fired Gray and
Red-Banded Projectile**



ATTACHMENT

J

Photograph of Q380



TEXAS DEPARTMENT
OF PUBLIC SAFETY

TEXAS DEPARTMENT
OF PUBLIC SAFETY





1981 M10 04 03





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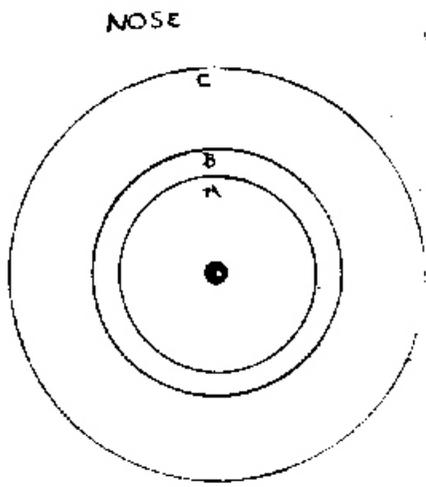


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OF PUBLIC SAFETY

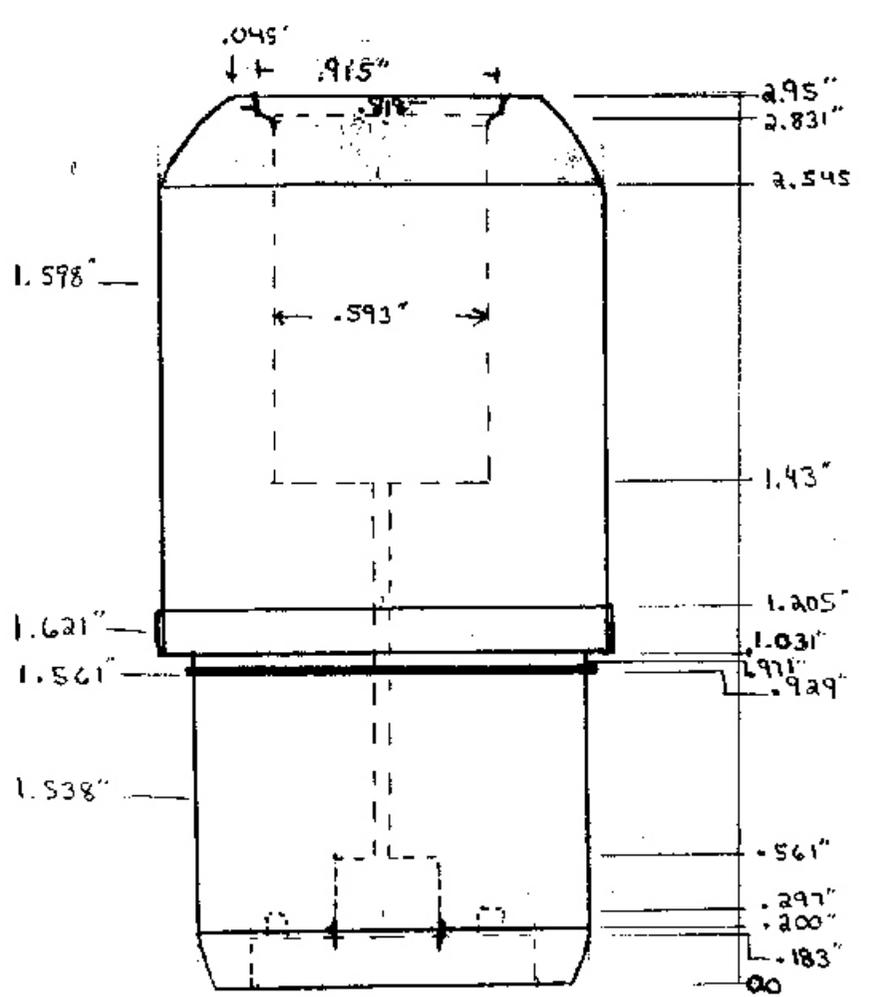
ATTACHMENT

K

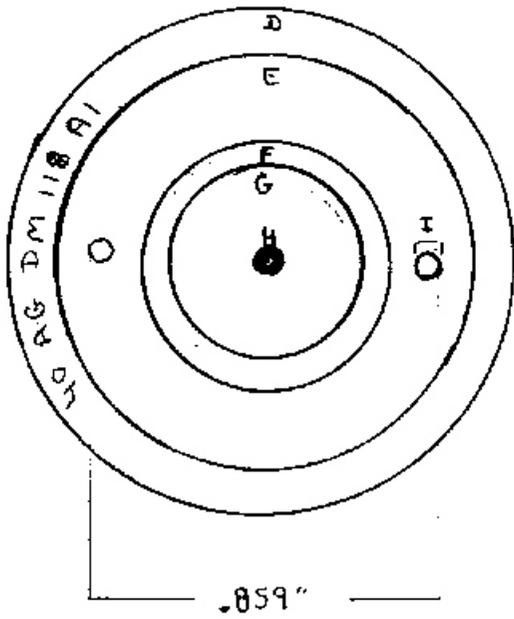
**Diagram of Q 380 made by
Ranger Sergeant Joey D. Gordon**



- A .593"
- B .818"
- C 1.598"



BASE



- D - 1.538"
- E - 1.375
- F - .923
- G - .451
- H - .120
- I - .1

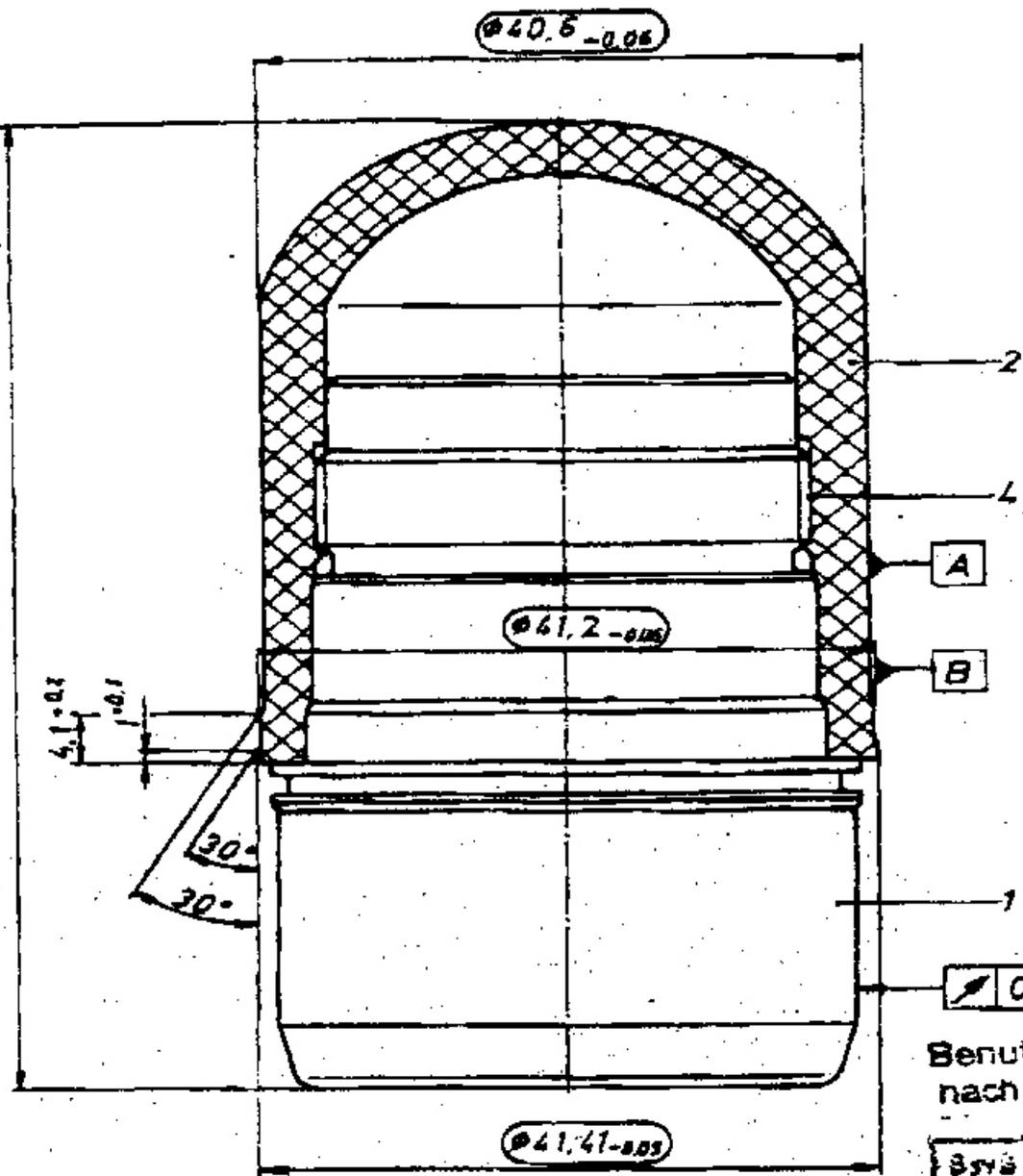
ATTACHMENT

L

Diagram of 40 AG DM 118 A1 Projectile

Verstoß ist auf die in der Zeichnung angegebenen Toleranzen zu beachten.
 Die Maße sind für die Fertigung und die Gebrauchsmuster (Erhaltung) maßgebend.

(77.5.0.8)



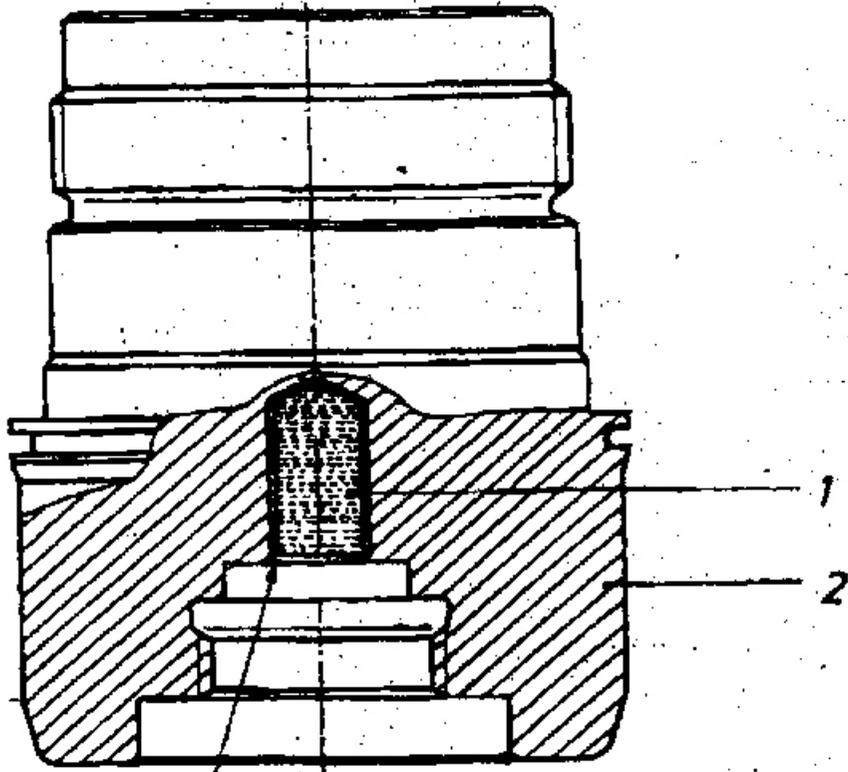
0.04 A B
 Benutzungsrecht
 nach VG 95 034

3578 - Wm VI.3
 2.2.100 1987
 [Signature]

Maße werden vom Besteller Empfänger bei der Prüfung besonders beachtet.

Benutzungsrecht nach VG 95034		BWB		1300942-100	
Maße ohne Toleranzangabe		Oberk Reihe		Maßstab 2:1	
Gewicht ca. 181 g		Maße ohne Toleranzangabe		Gewicht ca. 181 g	
1987 Datum		Maße ohne Toleranzangabe		1987 Datum	
Gepr. 74.4.		Maße ohne Toleranzangabe		Gepr. 74.4.	
Norm		Maße ohne Toleranzangabe		Norm	
NCO-PYROTECHNIK		Maße ohne Toleranzangabe		NCO-PYROTECHNIK	
Postfach 1237		Maße ohne Toleranzangabe		Postfach 1237	
2077 Tritau Bez. Hamburg		Maße ohne Toleranzangabe		2077 Tritau Bez. Hamburg	
10.A6.33-100		Maße ohne Toleranzangabe		10.A6.33-100	
Üb.-Geschöß 40 mm.		Maße ohne Toleranzangabe		Üb.-Geschöß 40 mm.	
DM 118 A1, Leuchtspur		Maße ohne Toleranzangabe		DM 118 A1, Leuchtspur	
97		Maße ohne Toleranzangabe		97	

Bei jeder Anzahl nicht ausreichten Lagerbeständen
 Zusatzenbestellungen regelmäßig zu schicken
 muss die Anzahl die den Fall der Abrechnung
 der Instruktionen-Einstellung vorbehalten



Benutzungsrecht
nach VG 95 034

BWB - Form VI 3
22 JULI 1987
ZUGELASSEN
Waldner

Maße werden vom Besteller empfangen bei der Prüfung besonders beachtet.

Benutzungsrecht nach VG 95034		BWB		1300942-110	
Maße ohne Toleranzangabe		Oberfl. Rohre		Maßstab 2:1	
DIN 7188-m		DIN 3161		Gewicht ca. 123g	
1987	Datum	Name		Geschoßboden.vollst.	
Beord.	14.6.	<i>Waldner</i>			
Gepr.	14.6.	<i>Waldner</i>			
Name					
NICO-PYROTECHNIK Haupt-Angebot-Büro Postfach 1227 2077 Trillau Bez. Hamburg		10.A6.33-110		Blatt	
Zust.	Änderung	Datum	Name	Erz.	Erz. E

ATTACHMENT

M

Correspondence with NICO Pyrotechnik

TO: DEPARTMENT OF PUBLIC SAFETY
TEXAS

FOR ATTN: MR JOEY GORDON

FROM: MR PETER McAULEY

DATE: 17 AUGUST 1999

SUBJECT: NICO 40mm X 46 CARTRIDGE

NICO
PYROTECHNIK
HANNES-JURGEN DREIERICHS GMBH & CO. KG
U.S. OFFICE

Dear Mr Gordon,

1. Further to your requests for information on the identity of a 40mm projectile, I have relayed the photographs you sent by e-Mail to NICO's Technical Department in Germany. Our Technical Department has provided the following information:

- 1.1 The projectile appears to be from a NICO 40mm x 46 Sound & Flash (S & F) Cartridge of the prototype design which was manufactured in approximately 1990. Approximately 1,000 of these were produced. This design was subsequently modified for volume production.
- 1.2 The markings on the base of the projectile "40 AG DM 118A1" indicate that the projectile was modified, by NICO, from a NICO Training cartridge which was in volume production for the German Army at that time.
- 1.2 The cartridge was designed and developed by NICO in response to a requirement identified by several Law Enforcement agencies around the world. It was designed and developed to NICO's "Technical Specifications and Acceptance Regulations", not to a MILSPEC as it was developed for Law Enforcement customers not for the Military.
- 1.3 Specific contents of the projectiles NICO manufactured are:
 - 1.2.1 Propellant: Approx. 0.4 grams of NC
 - 1.2.2 Delay Composition: Approx. 0.5 grams
 - 1.2.3 Report Composition: Approx. 4.0 grams
(Report Composition consists of Aluminum Powder & Potassium Perchlorate).

7422 Hallcrest Drive
McLean VA 22102
Tel: 1 - 703 - 748 0674
Fax: 1 - 703 - 748 0817
eMail: nicousa@bellatlantic.net

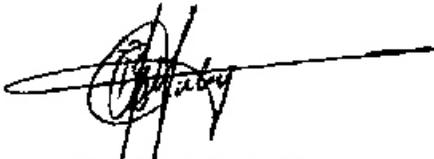
PAGE 1 OF 2 PAGES

08/17/99 TUE 11:08 [TX/RX NO 6015] 001

NICO
PYROTECHNIK
HANS-JÜRGEN DIEDERICHS GMBH & CO. KG
U.S. OFFICE

- 1.4 Due to the time that has elapsed since this cartridge was manufactured, a search of records to ascertain who were the customers for this device will take some time.
2. The original 40mm x 46 Sound & Flash cartridge was developed for Law Enforcement agencies to be used as a distraction device in stand off type situations when there was a need to project a distraction effect. The popularity of this type of cartridge has since led to further developments and modifications.
3. Enclosed please find a copy of the original basic technical data for this cartridge together with a basic drawing. Basically, the function of the cartridge was that the propelling charge would ignite a centrally located delay column which in turn would initiate the report charge. The delay was approx. 1.3 seconds which would give a distance to the initiation of the report charge of approx. 100 metres.
4. Your e-Mail included a photograph, the last one of those included, of a projectile lying in water. We have not been able to identify this projectile from the photograph provided.
5. Please do not hesitate to contact me if I can be of any further assistance.

Yours faithfully
NICO PYROTECHNIK



Peter J. McAuley
Manager Asia Pacific Area

Enclosures: 1. Basic Technical Data Sheet (1 Page)
2. Drawing (1 Page)

PAGE 2 OF 2 PAGES

08/17/99 TUE 11:06 [TX/RX NO 6015] 002



40 mm x 46 SOUND AND FLASH

Technical Data:

Length	.....	approx. 99 mm
Weight complete	.....	approx. 230 g
Weight projectile	.....	approx. 180 g
Material:		
Projectile Body	.....	aluminium
Cap	.....	plastic
Cartridge Case	.....	aluminium
Weapons used with	.....	HK 69, M 203, M 79, G41-TGS and G3-TGS with grenade launcher
Propelling Charge	.....	approx. 0,4 g
Delay Comp.	.....	approx. 0,5 g
Report Charge	.....	approx. 4 g

Performance:

Range max.	.....	up to 250 metres (delay 3 sec.)
Muzzle velocity	.....	approx. 78 m/sec. Std. deviation <1.5 m/sec. (20 rounds)
Delay	.....	approx. 1,3 sec.
Report	.....	130 dBA
Std. deviation at 100 m	.....	<30 cm

Temperature limits

Firing	.....	-35 Grad C +50 Grad C
Storage	.....	-35 Grad C +83 Grad C

Environmental requirements

MIL-STD 810 C/D

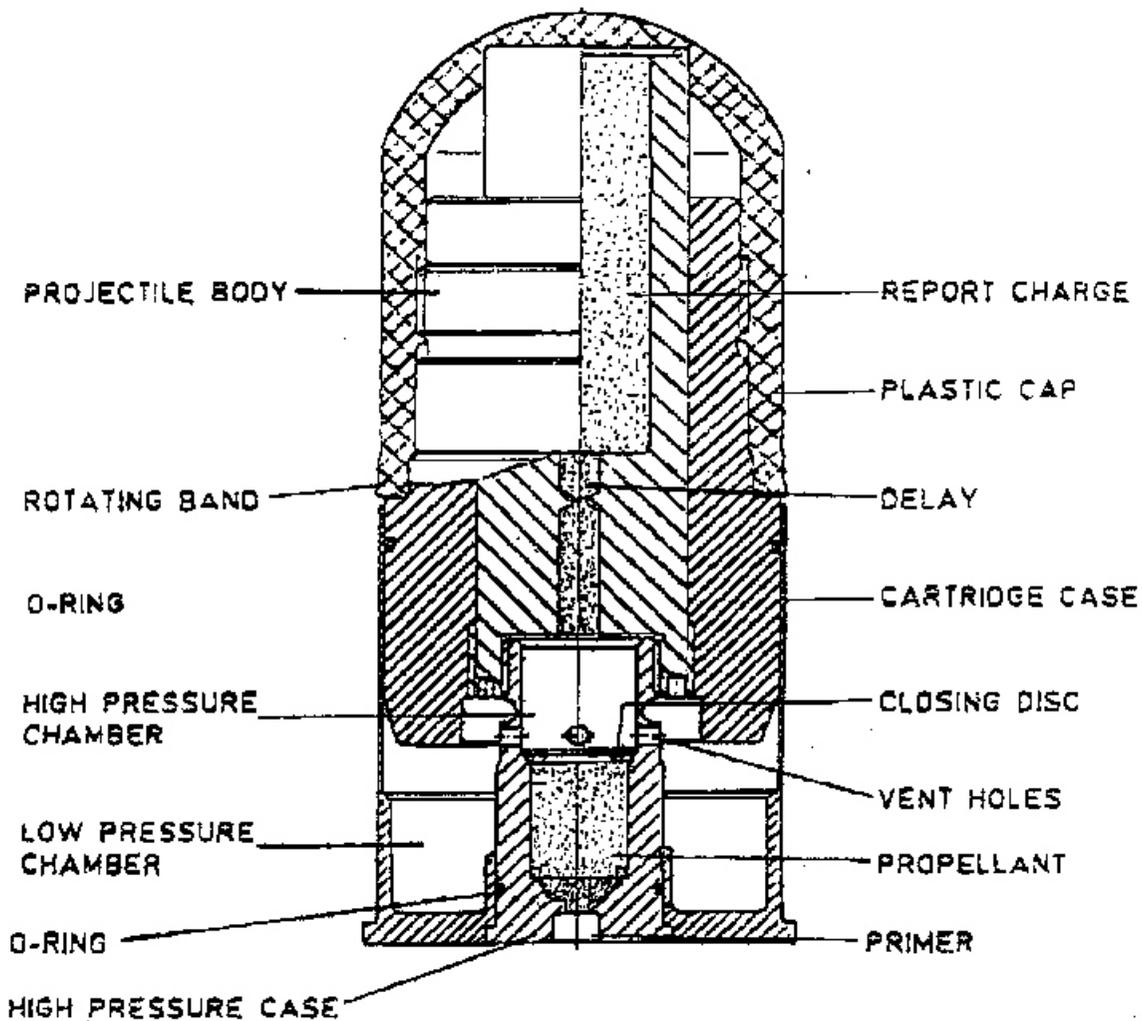
Packing:

80 rounds per box

weight	.....	gross approx. 24 kg net approx. 18 kg
dimensions	.....	approx. 710 x 322 x 205 mm

For more information please contact us.
This information is a guide and does not constitute an offer.

40 mm x 46 SOUND AND FLASH



CONFIDENTIAL

PROPRIETARY DATA OF NICO PYROTECHNIK

Hanns-Jürgen Diederichs GmbH & Co KG

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NICO PYROTECHNIK

HANNS-JÜRGEN DIEDERICHS GMBH & CO. KG

GESAMT SEITEN 23



TO: TEXAS RANGERS
ATTN: RANGER JOEY GORDON

FROM: NICO PYROTECHNIK
FRED PICKLER

SUBJECT: IDENTIFICATION OF NICO PYROTECHNIK 40mm x 46 S&F

DATE: 27 AUGUST 1999

Dear Ranger Gordon:

Regarding our meeting yesterday, I have spoken with our technician in Germany and he has provided me with additional information you requested.

An updated drawing follows, with additional identification and chemical information.

1. The two aluminum parts of the body, which we examined yesterday, are secured with "Loctite 270, which is Green in color. This material is utilized to bond the blast chamber housing to the base piece. Both pieces of material are in fact aluminum, and not steel as previously mentioned.
2. The "plastic casing" is the outer housing or windscreen, and in the two rounds we examined yesterday, are black in color. The plastic is described as a Delrin plastic, standard grade as manufactured by Du Pont.
3. The lower part of the delay column, identified as "delay charge" consists of a mixture of 80% silicum powder (Si) and 20% red lead (Pb3 O4). Mr. Haeselich said the red lead is an oxidizer, and the two chemicals (Silicum and red lead) are blended and pressed into a delay column within the base of the projectile. The spelling of silicum is correct according to him.
4. The report charge is according to Mr. Haeselich, a mixture of Potassium perchlorate and aluminum powder. This material is placed in the effect chamber of the upper portion of the inner aluminum tube.
5. The tip of the projectile, when it left the factory had a sealing cover which was partially, internally machined, and the cut would not have passed through the nose of the outer portion of the plastic material. This area is identified as the shear off point in the drawing.
6. Before assembly into the actual projectile, the black powder in the lower portion of the chamber holding the report charge was placed in position. The delay charge was then pressed into the same housing. The report charge was then placed in the top opening, and a sealing disc, which contained a thin aluminum foil on both sides, was placed over the report chamber, in the nose section of the round. This disc was then sealed with a crimp at the rim of the chamber.

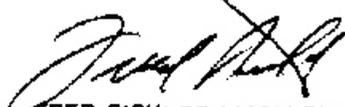
7. A thin bead of epoxy glue was placed on the outer wall of the aluminum base piece, as marked on the drawing, and bonded to the inner wall of the outer "windscreen" or black plastic casing.
8. The two metal pieces were then placed in a fixture and with one section (the outer body) being held in a non marking fixture, spun together with the aid of a tool which fitted in the two small holes that appear in the base of the cartridge. We refer to this tool as a spanner wrench.
9. Once the projectile is assembled, it is placed in a primed cartridge case, which has been charged with propellant, and the two are screwed together. This process joins the projectile to the high-pressure chamber.
10. When the primer is struck by the firing pin, igniting the propellant (Nitrocellulose Powder) and the pressure in the high pressure chamber bleeds over into the low-pressure chamber. When the internal pressure reaches a predetermined level, the projectile and the upper portion of the high pressure chamber shears off on a pre weakened line, and goes down range attached to the projectile.
11. The firing process initiates the delay charge. Approximately 1.3 seconds later the black powder charge initiates into the report charge and builds sufficient pressure to cause the cardboard disc and the shear off point to break away from the projectile and a brilliant flash and high report are released in the surrounding area.
12. The duration of the flash is approximately 2.5 milliseconds. This short duration is not likely to support a fire under normal circumstances as outlined in previous reports.

While it may seem we are a bit disorganized, please keep in mind these articles I have examined thus far were early production and design. They were most likely hand built. As we developed a customer requirement and learned of shortcomings of the design, it was changed, to what is our most current design, and brought into full production. I have been assured less than 1,000 rounds of this design were ever produced, and thus far are only aware of one shipment to the United States. Records are still being researched to determine how many and to whom they were shipped.

If identifying the actual customer becomes an issue, there are other avenues that can be explored to make positive identification of the recipient.

Best regards,

NICO PYROTECHNIK
HANNS-JÜRGEN DIEDERICHS GmbH & Co. KG



FRED PICKLER-MANAGER
LAW ENFORCEMENT PRODUCTS
NORTH AMERICA

One additional page follows-technical drawing

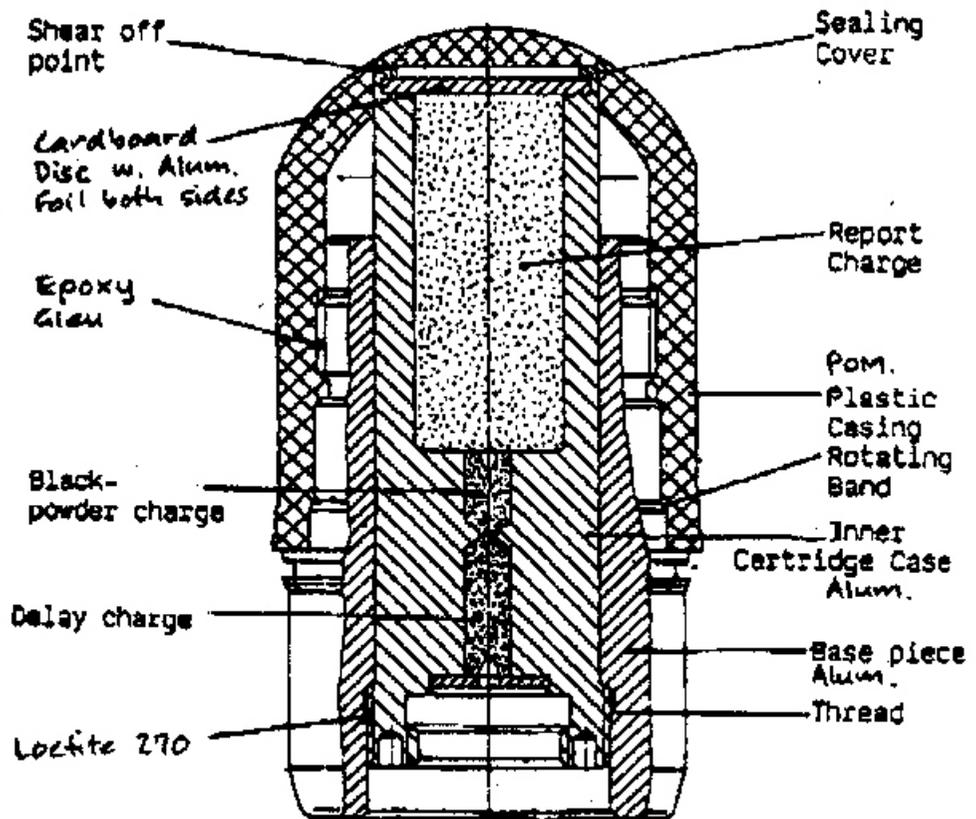
SAFETY ASSESSMENT REPORT
Cartridge 40 mm x 46 Sound and Flash

5.2 Projectile

The projectile body consists of a plastic molded casing with rotating band and an aluminium base piece which are screwed and sealed together to form one piece.

The report charge and the delay charge are filled in a inner cartridge case which is screwed into the projectile aluminium base piece.

The ogive is preformed in order to open the projectile body after initiating of the report charge

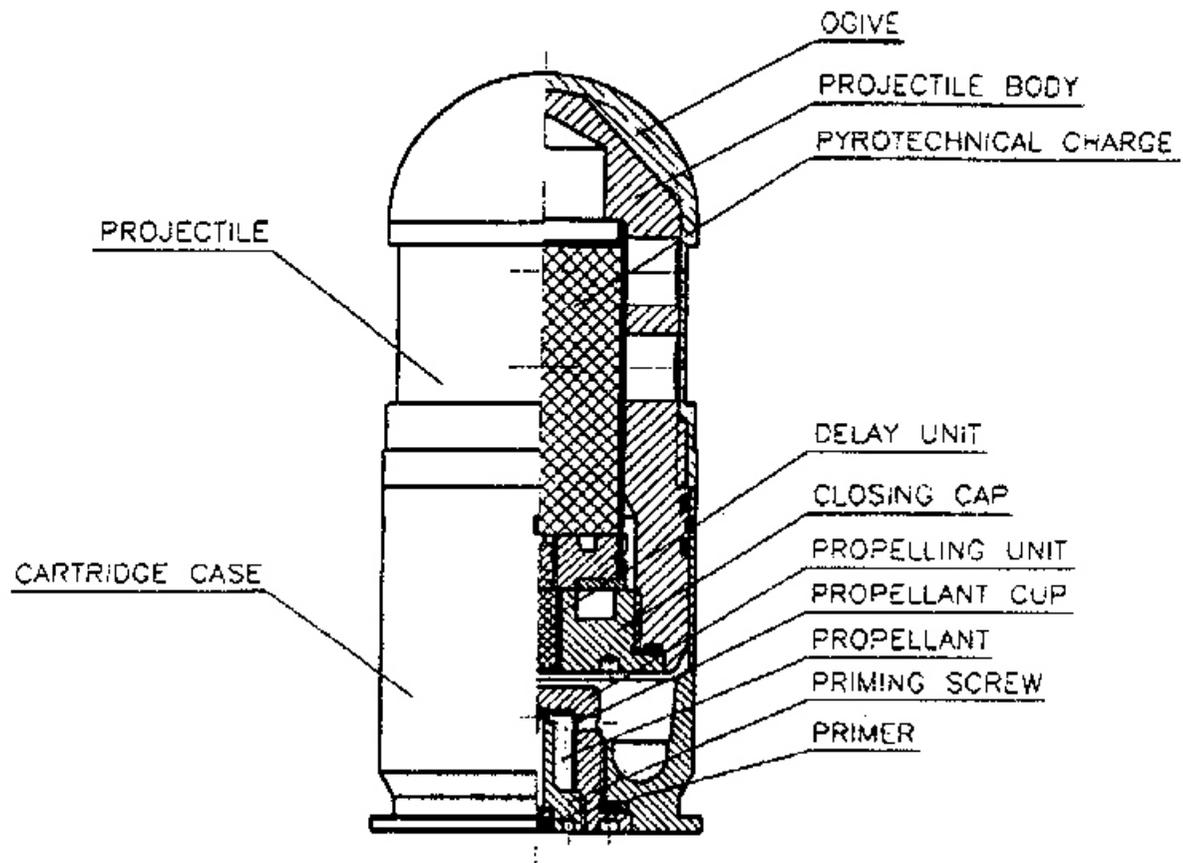


Remark: There is no special fuze necessary for function of the projectile

ATTACHMENT

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**Information on
ARGUS 40 MM x 46 Flashbang 93**



Technical Data

Cartridge length:	102mm
Cartridge weight:	265g
Projectile weight:	190g
Muzzle velocity:	76m/s
Firing range:	50m
Self-destruct time:	after approx. 1,2sec at 21°
Operating temperature:	-42.8°C to +51.6°C
Storage temperature:	-53.8°C to +73.9°C
Color: Projectile	black RAL 9005
Markings	white RAL 9001
Case	natural
Packing:	50 rounds/plywood box or on customer's request

ARGES

40 mm x 46 FLASHBANG 93 PRACTICE GRENADE

Item no. A0.05220



General

The cartridge 40 mm x 46 FLASHBANG 93 is used for training purposes and simulates a real detonation by means of flash and light effects without endangering the operating crew.

It is available with various self-destruct times depending on the desired firing range.

ARGES

Armaturen-Gesellschaft m.b.H.
A-4690 Schwanenstadt/Rüstorf
Phone:Austria(07673)2781-17
Telex:austria 26451ulba
Fax:(07673)2781-20

THE 40 mm x 46 LOW VELOCITY GRENADES

for M79, M203, HK 69, HK 79, CIS 40GL and GL6
(other weapons on request)



Their advantages

- higher precision by a novel patented ignition system
- guaranteed dispersion pattern at a distance of 100m: 1m x 1m
- $V_0 : 76\text{m/s}$ ($\bar{x}_{v_0} = 76\text{m/s} \pm 2\text{m/s}$, $\sigma_{v_0} \leq 1\text{m/s}$)
- use of the standard sight without additional correction of the adjusted actual firing range for all types
- maximum range: 400m

DRAKE ASSOCIATES, INC.
2941 SUNRISE HIGHWAY
ISLIP TERRACE, NY 11752
TEL-516 277-6700
FAX-516 277-6887

ATTACHMENT

O

**Copy of letter from Assistant United
States Attorney Bill Johnston to United
States Attorney General Janet Reno**



U.S. Department of Justice

United States Attorney
Western District of Texas

700 S. University Parks
Suite 770
Waco, Texas 76706

(254)750-1580
Fax: (254)750-1599

BY FACSIMILE

August 30, 1999

Honorable Janet Reno
Attorney General of the United States
Washington, D.C.

Dear Madam Attorney General Reno:

As I have watched the responses made by the Department of Justice to the recent Davidian evidence controversy, I have formed the belief that facts may have been kept from you - and quite possibly are being kept from you even now, by components of the Department. Therefore, this letter is written in an attempt to advise you of facts which might allow you to better deal with the issues at hand.

As you recall, shortly after the failed February 28, 1993, raid by ATF, I asked the Texas Rangers to come into the case as an objective agency which could investigate the circumstances of the shootout and present evidence for a possible prosecution. Thankfully, the Rangers agreed. Their job was not to be an easy one, and their work was made more difficult when the FBI altered the crime scene by using armored vehicles to push Davidian vehicles away from the compound. This problem, along with others, caused me to write the letter to you dated March 23, 1993, seeking help with what I termed, "...a crisis within our District..." You responded shortly thereafter in an attempt, I know, to gain control over a very difficult situation.

In addition to their role as investigators, the Rangers have been the primary custodians of the evidence gathered during the investigation. In 1998, an independent film-maker from Colorado named Mike McNulty began making requests to view the evidence. He contacted the Public Affairs section of the Department of Justice and he contacted me. After we had both received numerous phone calls from McNulty, Bert Brandenburg and I spoke about how to respond to his requests. We both had some reservations about dealing with Mike McNulty, in part, because of his first film, "Waco- Rules of Engagement." I felt at that time that the film was inaccurate, if not irresponsible. However, I expressed to Mr. Brandenburg that to stonewall McNulty tended to lend some credence to his already held belief that the government had something to hide. Because much of the evidence which McNulty sought to view had been in the public domain at trial, and because McNulty was not

a litigant, I believed that some reasonable but limited access should be granted him. Sometime after our discussion, Bert Brandenburg telephoned me to say that I should serve as the Department's contact with McNulty and that if I could get the Rangers to assist in allowing McNulty reasonable access to the evidence, then I should proceed in allowing him access. I have recently been told that Bert Brandenburg now distances himself from that decision and states that it was "Johnston's idea." No matter how he casts it, I am glad that McNulty was allowed to see the evidence.

Following my call to them, the Rangers kindly allowed McNulty to view the evidence. I was present on one occasion when McNulty came to Austin to see the evidence. I did not attend when he came a couple of times later. I know that his visits were closely supervised by the Rangers. At no time did he alter or disturb the integrity of any item of evidence. Following his viewing of the evidence, McNulty sought permission to interview you and me for his film. This request was denied by Bert Brandenburg. In his letter denying the request, Brandenburg discusses the fact that McNulty had been given access to the evidence (letter attached).

Based upon his observation of the evidence, Mike McNulty began to believe that evidence existed that the FBI had fired some sort of 40 millimeter projectile which could have started the fire on April 19, 1993. He has stated to me that in November of 1998, he wrote a letter to the Department of Justice, alleging facts in connection with the 40 millimeter projectiles.

On a Saturday morning in June of 1999, I received a telephone call at my home from DOJ Torts Branch lawyer Marie Hagen. Ms. Hagen was extremely upset with me. She demanded to know whether or not I had allowed Mike McNulty to view the Davidian evidence. I responded that I had. Ms. Hagen asked me what I thought I was doing, and inquired if I had received permission from the Torts Branch to allow McNulty access. She next asked if I had received permission from the Criminal Division. I responded as to both demands that the permission to do so had come from the Chief of Public Affairs, and that I figured that he had checked with the necessary folks before allowing me to coordinate with McNulty. She ended the conversation unquenched in her anger. I think that I now know why. Then within a day or so, I received a letter from Marie Hagen which directed that I account for my dealings with McNulty, Brandenburg, "...and anyone else in connection with these materials." About the same time, our office received a similar letter over the signature of Jeffrey Axelrad, Chief of the Torts Branch (letters attached).

In mid-June of this year, I received a letter from an attorney for the Texas Department of Public Safety (DPS). He later telephoned me. The attorney stated that DPS desired to cease being custodians of the Davidian evidence. I told the attorney that I would help them in any way, since DPS, particularly the Rangers, had done more than what was expected of them. DPS personnel have since explained to me that their agency simply did not have the time or resources to continue to deal with the many issues regarding the evidence, particularly the ever-increasing number of Open Records requests. DPS has felt somewhat slighted by the Department of Justice in this regard since the Department has apparently avoided dealing with Freedom of Information Act requests about the evidence by stating something like, "We don't have the evidence, the Rangers do." This response may be a little disingenuous because the Rangers actually have the evidence as Special Deputy U.S. Marshals. Genuine or not, this manner of response by the Department has caused DPS to be burdened with a large number of requests. DPS then chose to file a motion with U.S. District Judge Walter Smith, Jr., of Waco. The motion sought an order transferring responsibility for the evidence to another agency. Wisely, the Chairman of the DPS Commission asked the Rangers to take stock of the evidence before it was released. As they looked at the task of inventorying and reviewing the

evidence, the Rangers were determined to be particularly attentive to "controverted" evidence. That is, evidence which by claim of McNulty, or others, was meaningful to some alleged misconduct or misrepresentation.

A couple of months ago, Rangers began the task of looking again at the evidence. After some initial work, certain "40 millimeter" evidence became the focus of their inquiry. Because of my relationship with both the Rangers and the case, I was asked by the Rangers to work with them in their effort. This I did. Since I was the one who brought the Rangers into this case at the beginning, I figured that I should help them see it through to the end. Pretty soon, a 40 millimeter shell casing marked "M-118" and a photograph of a grey projectile with a red stripe became very significant. As soon as their significance was even suspected, I notified my U.S. Attorney, in writing, of what was going on. Soon, it was determined that the casing had been fired by the FBI on April 19, 1993, --by their own admission. This admission had been made to a Ranger in late 1993 or early 1994. The Ranger simply did not understand the significance of the casing at that time. The full significance was figured out by the Rangers just in the past couple of weeks. The photo of the projectile mentioned above shows what the Rangers now know is an M-651 pyrotechnic tear gas round. The casing goes with the projectile. As early suspicions of these problems made their way to the media via the DPS Chairman Jim Francis, I was astounded to see the Department's response was that this was "more nonsense." My surprise was based upon the fact that I had been updating my U.S. Attorney for weeks about this evidence. Attached are some of the "e-mails" which I have been able to find having to do with these discussions. Last week, I expressed this frustration to current Public Affairs Chief Myron Marlin (document attached). I am in disbelief that someone in the Department did not advise you of these developments. I hope that you can find out why they did not. In addition to the "e-mails," I sent to my U.S. Attorney, by facsimile, copies of the specifications for the M-651 tear gas round which the Rangers had obtained. Again, this was done by me weeks ago.

As you recall, when Congress investigated the Davidian matter in 1995, I was called as a witness. Once it was determined that I would have to testify, I was kept at a distance from the Department. It was not the Department that brought me to Washington to prepare for the hearing, but the Treasury Department. Although I was treated courteously by Richard Scruggs, I was not assisted by anyone with DOJ in any real way in preparing for my testimony. In fact, I was handled as if I had some strain of intellectual leprosy. A couple of days before the hearing, an AUSA named Zipperstein told me that I needed to write out a statement of my recollection of the events. This, he said, was so that I could have these matters placed into the record in case I was not given the opportunity to have my say on certain matters. An office and computer were provided to me to prepare this statement. For the next several hours, I worked feverishly on my statement. Upon completion, I walked proudly to Mr. Zipperstein's office with statement in hand only to be told that I did not need to do a statement after all. When I asked what had changed and why I would not be allowed to give the statement, Zipperstein told me simply that nothing had changed - he just did not need for me to do the statement. Naively, stupidly, I accepted his response. With the hearing beginning the next day, I made my way down the street to the Treasury Department where Undersecretary Ron Noble, who was neither ashamed of me, nor afraid of what I might say, talked with me about some of the issues which might arise at the hearing. I mention the foregoing about the previous experience because I anticipate the same or worse may occur. In fact, it may have already begun. Last week, a fax which originated with the Department of Justice came to me. The

fax was in three pages. The first was a copy of handwritten notes which had apparently been written by a paralegal who assisted in the Davidian trial preparation. The notes were of an interview of an FBI agent which was probably conducted in 1993. The notes reflect that the agent said that he fired ferret rounds and a "military gas round." An accompanying document is an outline of the witness' testimony which bears the name of the paralegal and my name. This suggests that I was present during the interview. Although I do not specifically recall the interview, I probably was present if the document says that I was. I can certainly tell you that, assuming I heard the entire conversation, the term "military gas round" would not have meant anything to me at the time. The third page of the fax was an FBI report of an agent who heard radio traffic about a military round being fired. It has been suggested to me that these documents were sent to me to "hang over my head," or to say that I'd better look out stirring this matter up, as I may have to explain this paralegal's memo. So long as it is the truth "hanging over my head," I am not afraid. I will not be intimidated by anyone with the Department of Justice. I will assist the Congress or any other body who seeks the truth in this case.

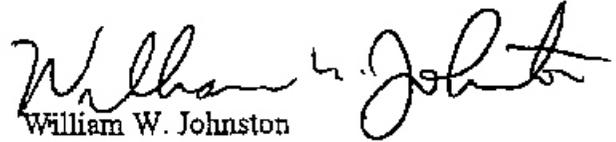
I mentioned above that I think that I understand why Marie Hagen was so upset that I had worked with Mike McNulty in allowing him access to the Davidian evidence. I believe that the three pages faxed to me last week hold the answer. At the top of the typewritten document, someone has written, "...privileged." At the bottom it appears that someone wrote, "DOJ witness do not disclose." It appears that someone was making decisions about whether the plaintiffs in the civil case, or others, should have access to these documents. It is my own hypothesis that the Torts Branch has had these documents for years, and that they decided not to make them available to the plaintiffs. The Torts Branch or some other component also apparently decided not to let you know about these documents. Certainly, as attention focused in the past year on the fire issue, the full import of these documents must have been known to whomever possessed them. I now wonder whether or not you were ever advised that two Deputy U. S. Marshals in Waco were falsely accused of leaking raid information to the media back in 1993. These allegations were completely false, if not malicious. Not only was no action taken against the accusers who were both Deputy Marshals as well, but one of them has since been promoted. Similarly, although two ATF supervisors lied to the Rangers about whether or not they knew the element of surprise had been lost before the raid, representatives of the Department of Justice chose to not prosecute these individuals -- and they were rehired with ATF. This sort of non-accountability, as described above, cuts at the credibility of the Department of Justice.

You may recall that in my March 23, 1993, letter I closed by saying "...[I] am willing to accept any consequences..." for writing the letter. There have been some consequences. I will close this letter to you by briefly describing a few. Essentially, since the letter, I have been seen by many as a mutineer. The Waco Division office which I supervise has been given little help to deal with an ever more complex caseload. To deal with the caseload which we produce, the U.S. Probation Office in Waco has gone from a staff of three, to a staff of twenty in the past ten or so years. Our office saw only modest growth from one to three attorneys by 1993, with no real growth over the past six years. For most of the past six years, our office has been comparable in caseload and complexity of cases to that of the Austin office, an office which hosts more than three times as many attorneys and three times the support staff. Although our entire District has yet to prosecute a capital case, my office currently has three federal capital murder cases pending. In fact, we now have ten defendants charged in or in relation to homicide cases. If our office does not deserve resources,

certainly the victims' families do. We also have a couple of 50 ton marijuana cases and a methamphetamine case involving a ton or more pending amongst our current case load of 81 cases against some 156 defendants.

It is a reality of our large government that its department heads cannot learn of every significant event taking place within their purview. If this has happened to you, I hope that this letter can assist you in learning of some of the facts which have been known by individuals under your supervision. In an order issued some years ago, Judge Smith referred to the Davidian case as, "An American tragedy of epic proportion." It was. I hope that the truth may be learned so that the tragedy does not continue.

Sincerely,

A handwritten signature in cursive script, appearing to read "William W. Johnston".

William W. Johnston
Assistant U. S. Attorney
Chief, Waco Division
Western District of Texas