Only a few mm in size 3-5 mm.

Injury to the wall of the trachea. No missile in the wound.

Deep Freeze 1-5050
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Dallas 30, Tex.
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Home

Off in Med. School
Dept. of Surgery

Dr. Shires
Dr. Malam Perry & Hume

COMMISSION EXHIBIT 397
According to available information, the deceased
President John F. Kennedy was riding in an open
car in a motorcade during an official visit to
Dallas, Texas, on 22 Nov. 1963. The president
was sitting in the right rear seat with Mrs.
Kennedy seated on the same seat to his
right. Sitting directly in front of the
president was Mr. John B. Connally of
Texas and directly in front of Mrs. Kennedy
sat Mrs. Connally. The vehicle was moving
at approximately 15 miles per hour. Suddenly
an indigo into an underpass that caused
to a freeway route to the Dallas Trade Mart
when the president was to give an address.

There shots were heard and the president
fell forward to the floor of the vehicle.
declaring from the head. (Governor Connolly was seriously wounded by the same gun.) According to newspaper reports (Washington Post, Nov. 23, 1963) Bob Jackson, a Dallas Times Herald photographer, said he looked around as he heard the shots and saw a rifle barrel disappearing into a window on an upper floor of the nearby Texas School Book Depository Building.

Shortly following the wounding of the two men the car was driven to Parkland Hospital. In the x-ray room of that hospital the president was attended by Dr. Malcolm Perry. Telephone communication with Dr. Perry on Nov. 23, 1963 developed the following information relative to the observations made by Dr. Perry and procedures performed there prior to death. Dr. Perry noted the massive wound of the head and a second, puncture wound, of the low anterior made in approximately the midline. A trepanning was performed by piercing the latter
At this point bloody air was noted bubbling from the wound and an injury to the stippled wall of the trachea was noted. Incisions were made in the upper anterior chest wall bilaterally to end all possible subcutaneous emphysema. Intravenous infusions of blood and saline were begun and oxygen was administered. Despite these measures cardiac arrest occurred and chest cardiac massage failed to re-establish cardiac action. The patient was pronounced dead approximately thirty to forty minutes after receiving his wounds. 

The remains were transported via the presidential plane to Washington, D.C. and subsequently to the Naval Medical School National Naval Medical Center, Bethesda, Md., for post-mortem examination.

**General Description of Body**

The body is that of a muscular, well-developed and well-nourished adult Caucasian male measuring 73 3/4 inches and weighing approximately 165 pounds.
170 lbs. There is beginning rigor mortis, minimal dependent livor mortis of the dome and early algor mortis. The hair is reddish brown and abundant, the eyes are open, the pupils measuring 3 mm. in diameter, the left 4 mm. There is edema and ecchymosis of the inner cantus region of the left eye and measuring approximately 2 cm. in greatest diameter. There is edema and ecchymosis of the forehead and scalp with abnormal mobility of the underlying bone. (The remainder of the scalp will be described with the skull.) There is dotted blood on the external ear but otherwise the ears, nose and mouth are essentially unremarkable. The teeth are in excellent repair and there is some evidence of the and mucous membrane.

There is a semi-circular incision just above the upper border of the suprasternal notch, a 4 x 4 cm. wound. This wound is measured.
to be 14 cm. from the top of the st. cervicis process and 14 cm. below the
top of the st. mastoid process.

Situated in the bun-antenier wall of approximately the level of the third and
fifth transverse rings is a 6.5 cm. long
transverse wound with widely gaping
irregular edges. (The depth and character
of these wounds will be further described
below.)

Situated on the anterior chest wall in the nipple line are bilateral 3 cm. long
recent transverse surgical incisions into
the subcutaneous tissue. The one on the
left is situated 11 cm. cephalad to the
nipple and the one on the right 8 cm.
cephalad to the nipple. There is no
hemorrhage or ecchymosis associated
with these wounds. A similar 3 cm.
transverse wound, measuring 3 cm. in length is
situated on the antero-lateral aspect of
the mid arm. Situated on the antero-lateral aspect of each ankle is a
recent 2 cm. transverse incision into the subcutaneous tissue.

There is an old well healed 8 cm. Mc Burney abdominal incision. Over the lumbar spine in the middle is an old, well healed 10 cm. scar, situated on the upper anterior lateral aspect of the thigh. Is an old, well healed 8 cm. scar.

**Wound:**

1. There is a large irregular deficit of the scalp and skull on the right involving chiefly the parietal bone and extending somewhat into the temporal and occipital regions. In this region there is an actual absence of scalp and bone producing a defect which measures approximately 13 cm. in greatest diameter.

From the irregular margins of the above scalp deficit tears spread in telutate fashion into more or less intact scalp as follows:

- From the right inferior temporal...
Painted margin anterior to the ST. ear to a point slightly above the tempora.

1) From the anterior painted margin anterio to the forhead to approximately 4 cm. above the ST. lateral ridge.

2) From the right margin of the main defect across the midline anterio-laterally for a distance of approximately 8 cm.

3) From this same starting point as (2), 10 cm posterior-laterally, situated in the posterior neck, approximately 3.5 cm laterally to the right and slightly above the external acoustic notch, in a line drawn tangential to the neck measuring 15 x 1 mm.

In the underlying bone is a corresponding defect through which the absence of the skull is evident, and from which a fragment of bone, measuring 1.5 x 0.5 cm. and slightly stippled in the described area, should defect and resulting from it is evident. The brain tissue within the above mentioned area is unrecognizable, and represents.
the major portion of the right cerebral hemisphere. At this point it is noted that
the falx cerebri is intimately associated with
discernment of the superior sagittal sinus.

Upon reflecting the scalp, multiple
complete fracture lines are seen to radiate
from both the large defect at the mid
and the smaller posterior wound at the
sphenoid. These vary greatly in length
and direction, the longest measuring
approximately 19 cm. These resulted in the
production of numerous fragments which
ranged from a few millimeters to
10 cm in greatest diameter.

The complexity of these fractures and
the fragments thus produced does not satisfy
written description and are better appreciated
in photographs and radiographs which are prepared.

The brain is removed and preserved for
further study following formalin fixation.
These are received from separate speculations
three fragments of which were included in

COMMISSION EXHIBIT 397—Continued
aggregate roughly approximate the dimensions of the large defect described above. At one angle of the length of this fragment is a portion of the perimeter of a roughly circular wound of a peripheral nature, located at the center of the defect and estimated to measure approximately 3.5 to 3.0 cm in diameter. Roentgenograms of this fragment revealed minute fragments of metal in the bone at this margin. Roentgenograms of the small reveal multiple minute metallic fragments along a line corresponding with the joining of the above described defect wound and the st. supra-orbital ridge. From the surface of the drained at, carbonated tissue two small irregularly shaped fragments of metal are removed. These measure 7 x 1 mm and 3 x 1 mm. There are placed in the custody of agents Francis X. O'Neil, D. M. and James W., Stnet of the Federal Bureau of Investigation. Interpreted a report typewritten (attached) 2. The second wound of entry is that
described above in the upper left posterior thorax. Beneath the skin there is edema of subcutaneous tissue and muscle. The needle path through the parietal pericardium and muscle walls cannot be easily located. The wound was that described by Dr. M. L. Perry of Dallas in the posterior parietal region. When examined by Dr. Perry, the wound measured a "2.5 millimeters in diameter" however it was extended as a tracheotomyc incision and thus its diameter is distinct at the time of autopsy. However there is considerable edema of the strap muscles of the neck and of the pericardium about the trachea adjacent to the skin of the tracheotomy wound. The third point of reference in connecting these wounds is in the apex (supra clavicular portion of the left pleural cavity). In this region there is confusion of the pericardial pleura and of the upper lobe of the lung. In both...\[COMMISSION EXHIBIT 397—Continued\]
instances the diameter of contiguous and adhesions at the point of maximal involvement measure 5 cm. Both the wound and painted pleurants and underlying tissues of

Indications: The scalp wound has extended in the carinal plane to examine the cranial contents and the anterior 'Y' shaped sinus is used to examine the body cavity

Thoracic Cavity: The bony cage is unmistakable. The thoracic organs are in their normal positions and relationships and there is no increase in pleural fluid. The plane described area of contusion in the apical portion of the left pleural cavity is noted.

Lungs: The lungs are of essentially similar appearance the right weighing 370 g and the left 390 g. The lungs are well aerated with a smooth glistening pleural surface and grey-pink color. A small area of mottling and discoloration and increased firmness to palpation is situated in the apex.
portion of the st. upper lobe. This corresponds to the smaller area described in the overlying painted pleura, being in the wing and posterior upper lobe. The pleural cavity is smooth walled and contains approximately 10 cc of straw-colored fluid. The heart is of essentially normal internal contents with a weight of 350 g. The pulmonary artery is opened in situ and no abnormality is noted. The cardiac chambers contain moderate amounts of post mortem clotted blood. There are no significant abnormalities of the leaflets of the cardiac valves. The following are the circumferences of the cardiac valves: aortic 7.5 cm, pulmonic 7 cm, tricuspid 12 cm, mitral 11 cm. The myocardium is firm and reddish brown. The left ventricular myocardium averages 1.5 cm in thickness, the st. ventricular myocardium 0.4 cm. The coronary arteries are dissected, are of normal distribution and smooth walled and stenotic throughout.

COMMISSION EXHIBIT 397—Continued
Abdominal Organs. The abdominal organs are in their normal positions and without injury. There is no increase in free peritoneal fluid. The serous membranes are surgically absent and there are some adhesions joining the parietal peritoneum to the rectus abdominis and to the above described old abdominal incision scar.

Skeletal System. Aside from the above described old abdominal wound, there are no significant gross skeletal abnormalities.

Photography. Black and white and color photographs are provided of significant injuries, including:

Radiographs. Roentgenograms are provided of the entire body and of the separately identified three fragments of skull bone. Distinguishing features are:

Summary. Based on the above observations, it is our opinion that the deceased died as a result of two gunshot wounds inflicted by high velocity projectiles fired by a person.
as persons unknown. The projectiles were fired from a point behind and slightly above the defendant's head, at the moment of impact. The observations and available information do not permit a satisfactory estimate as to the sequence of the two wounds.

The latter missile entered the skull above and to the right of the external occipital protuberance. It passed forward of the projectile trivial the cranial cavity in a posterior-acoustic direction (see lateral skull radiograph) depositing minute particles along the path. The upper portion of the projectile made the exit through the parietal bone on the right. The two wounds carried with them portions of cerebrum, skull and dura. The two wounds of this scalp combined with the force of the missile produced extensive fragmentation of the skull, laceration of the dura mater, a fatal brain stem and of the left cerebral hemisphere.

The second missile entered the left, superior posterior temporal
separately to the right of the spine and
traumatized the soft tissue of the super-
scapular and supra-clavicular portions of
the base of the right side of the neck. The
wound produced extensions of the st. spinal
peritoneal pleura and of the spinal portion
of the st. upper lobe of the lung. The wound
continued the strap muscles of the st. side
of the neck, damaged the trachea and
made its exit through the anterior surface
of the neck. As far as can be ascertained
this wound struck no bony structures in
its path through the body.

A supplementary report will be
submitted following the microscopic
examination of the brain and of microscopic sections
However it is not anticipated that these
examinations will materially alter the
findings.

In addition to an opinion that the
wound of the scalp produced such extensive
damage to the brain as to preclude the
possibility of the decedent surviving this injury.
24 November 1963

CERTIFICATE

I, James J. Humes, certify that all working papers associated with Naval Medical School Autopsy Report A63-272 have remained in my personal custody at all times. Autopsy notes and the holograph draft of the final report were handed to Commanding Officer, U. S. Naval Medical School, at 1700, 24 November 1963. No papers relating to this case remain in my possession.

J. J. Humes
CDR, MC, USN

Received above working papers this date.

J. H. Stover, Jr.
CAFP, MC, USN
Commanding Officer, U. S. Naval Medical School
National Naval Medical Center

COMMISSION EXHIBIT 397—Continued
I, James J. Humes, certify that I have destroyed by burning certain preliminary draft notes relating to Naval Medical School Autopsy Report A63-272 and have officially transmitted all other papers related to this report to higher authority.

J. J. Humes
CDR, MC, USN

COMMISSION EXHIBIT 307—Continued