

The undersigned physicians performed the autopsy on the body of late President John F. Kennedy. In charge was James J. Humes, M.D., at that time Commander, Medical Corps, United States Navy, and Director of Laboratories, Naval Medical School. He was certified in 1955 by the American Board of Pathology in Anatomic and Clinical Pathology. Assisting him were J. Thornton Boswell, M.D., and Pierre A. Finck, M.D. Dr. Boswell at that time was a Commander in the Medical Corps, United States Navy, and Chief of Pathology, Naval Medical School. He was certified in 1957 by the American Board of Pathology in Anatomic and Clinical Pathology. Dr. Finck, a Lieutenant Colonel, Medical Corps, United States Army, was then Chief of the Military Environmental Pathology Division, and Chief of the Wound Ballistics Pathology Branch, Armed Forces Institute of Pathology, Walter Reed Medical Center. He was certified in 1956 by the American Board of Pathology in Anatomic Pathology, and in 1961 in Forensic Pathology.

The Surgeon General of the Navy advised Dr. Humes that the purpose of the autopsy was to determine the nature of the President's injuries and the cause of his death.

The autopsy began at approximately 8:00 P. M. on Friday, November 22, 1963, and was concluded approximately at 11:00 P. M. The autopsy report, written by Dr. Humes with the assistance of Dr. Boswell and Dr. Finck, was written on November 23 and the morning of November 24, and delivered by Dr. Humes to Admiral Burkley, the President's physician, on November 24 at about 6:30 P. M.

Dr. Humes was chosen to perform the autopsy because of the decision to bring the body of the late President to the Naval Medical Center in Bethesda, Maryland, where, as stated, he was Director of Laboratories.

At the direction and under the supervision of Dr. Humes, x-rays and photographs of the President's body were taken during the autopsy. The x-rays were examined that same evening. However, the photographs were not seen at that time. All x-rays and photographic plates were delivered that evening to Secret Service personnel. Dr. Humes and Dr. Boswell first saw the photographs on November 1, 1966, when requested by the Department of Justice to examine, identify, and inventory them at the National Archives. Dr. Finck first saw the photographs on January 20, 1967.

The undersigned physicians have been requested by the Department of Justice to examine the x-rays and photographs for the purpose of determining whether they are consistent

with the autopsy report. Pursuant to this request, we met after our regular work day, on January 20, 1967, at the office of Dr. Robert H. Bahmer, Archivist of the United States, where the x-rays and photographs were made available to us. Our findings with respect thereto follow.

### THE NECK WOUND

#### The Location

The autopsy report states that the "wound presumably of entry" was "in the upper right posterior thorax". In non-technical language, this wound was located low in the back of the neck. Photographs Nos. 11, 12, 38 and 39 verify the location of the wound, as stated in the report. Warren Commission Exhibit 397 includes a drawing (Vol. XVII, p. 45) which purports to show the approximate location of the wound, and specifically states that it was 14 cm. (5-1/2 inches) from the tip of the mastoid process (behind the right ear), and 14 cm. from the tip of the right acromion (the extreme tip of the right shoulder bone). Photographs 11, 12, 38 and 39 confirm the accuracy of these measurements. The drawing itself may be somewhat misleading as to the location of the wound, making it appear at a point lower than it actually was. No one photograph shows both the wound at the back of the neck and the wound in the throat, but by comparing Photographs 11, 12, 38 and 39 with the side views shown in Photographs Nos. 1-4, inclusive, it is clear that Warren Commission Exhibits 385 and 386, which also depict the location of the neck wound, are accurate. Photographs Nos. 26 and 38 show the wound in the back of the neck to be higher from the horizontal plane than the wound in the throat.

#### Entrance

Our finding, as stated in the autopsy report, that the wound low in the back of the neck was an entrance wound is supported by Photographs Nos. 11, 12, 38 and 39. They show the edges of the wound to be inverted, regular and smooth. At such a location and in such tissue these are the principal characteristics of an entrance wound.

#### The Size of the Entrance Wound

The autopsy report states that the wound was 7 by 4 mm. (0.275 inches by 0.157 inches); and Photographs Nos. 11, 12, 38 and 39 confirm the accuracy of this measurement.

### Exit

The autopsy report states that the "wound presumably of exit" was that described by Dr. Malcolm O. Perry of Dallas. This wound was used as the site of a tracheotomy incision, and its character thus distorted. Photographs Nos. 1-6 inclusive, 13, 14, 26-28 inclusive, 40 and 41 show the wound as being below the Adams apple.

It should be noted that the morning after the autopsy, Saturday, November 23, 1963, Dr. Humes telephoned Dr. Perry at the Parkland Hospital in Dallas. Dr. Perry was the physician who attended the President immediately after the shooting. Dr. Perry advised Dr. Humes that he had observed a missile wound below the Adams apple, and that the site of this wound had been used as the site of the tracheotomy incision. This information made it clear to us that the missile which had entered the back of the neck had exited at the site of the tracheotomy incision.

### THE HEAD WOUND

#### Entry

The autopsy report states that a lacerated entry wound measuring 15 by 6 mm. (0.59 by 0.24 inches) is situated in the posterior scalp approximately 2.5 cm. (1 inch) laterally to the right and slightly above the external occipital protuberance (a bony protuberance at the back of the head). In non-technical language this indicates that a small wound was found in the back of the head on the right side. Photographs Nos. 15, 16, 42 and 43 show the location and size of the wound, and establish that the above autopsy data were accurate. Due to the fractures of the underlying bone and the elevation of the scalp by manual lifting (done to permit the wound to be photographed) the photographs show the wound to be slightly higher than its actually measured site.

The scalp wound shown in the photographs appears to be a laceration and tunnel, with the actual penetration of the skin obscured by the top of the tunnel. From the photographs this is not recognizable as a penetrating wound because of the slanting direction of entry. However, as we pointed out in the autopsy report, there was in the underlying bone a corresponding wound through the skull which exhibited beveling

of the margins of the bone when viewed from the inner aspect of the skull. This is characteristic of a wound of entry in the skull.

#### Exit

The autopsy report further states that there was a large irregular defect of the scalp and skull on the right involving chiefly the parietal bone but extending somewhat into the temporal and occipital regions, with an actual absence of scalp and bone measuring approximately 13 cm. (5.12 inches) at the greatest diameter. In non-technical language, this means that a large section of the skull on the right side of the head was torn away by the force of the missile. Photographs Nos. 5-10 inclusive, 17, 18, 26 - 28, 32-37 inclusive, 44 and 45 portray this massive head wound, and verify that the largest diameter was approximately 13 cm. The report further states that one of the fragments of the skull bone, received from Dallas, shows a portion of a roughly circular wound presumably of exit which exhibits beveling of the outer aspect of the bone, and the wound was estimated to be approximately 2.5 to 3.0 cm. (1 to 1.18 inches) in diameter. X-ray Nos. 4, 5 and 6 show this bone fragment and the embedded metal fragments. Photographs Nos. 17, 18, 44 and 45 show the other half of the margin of the exit wound; and also show the beveling of the bone characteristic of a wound of exit. Photographs Nos. 44 and 45 also show that the point of exit of the missile was much larger than the point of entrance, being 30 mm. (1.18 inches) at its greatest diameter. Photographs 5-10 inclusive, 32-37 inclusive, 44 and 45 show the location of the head wound, and verify the accuracy of the Warren Commission drawings (Exhibits 386 and 388, Vol. XVI, pp. 977 and 984) which depict the location of the head wound.

#### NO OTHER WOUNDS

The x-ray films established that there were small metallic fragments in the head. However, careful examination at the autopsy, and the photographs and x-rays taken during the autopsy, revealed no evidence of a bullet or of a major portion of a bullet in the body of the President and revealed no evidence of any missile wounds other than those described above.

SUMMARY

The photographs and x-rays corroborate our visual observations during the autopsy and conclusively support our medical opinion as set forth in the summary of our autopsy report.

It was then and is now our opinion that the two missiles which struck the President causing the neck wound and the head wound were fired from a point behind and somewhat above the level of the deceased.

Our examination of the photographs and x-rays lasted approximately five hours, and at its conclusion the photographs and x-rays were returned to the Archivist of the United States.

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