

February 6, 1997

**Semi-Final Draft**

Mr. James R. Milch  
Director, Imaging Science Division  
Imaging Research and Advanced Development  
Eastman Kodak Company  
Building 65, Floor 1, Research Laboratories  
Rochester, NY 14650-1816

Dear Mr. Milch:

Thank you for your letter of January 7, 1997. We found Mr. Zavada's report dated December 19, 1996 quite interesting, and appreciate the time you have invested on our behalf. I appreciate very much Kodak's generous offer to contribute up to \$20,000.00 of labor and materials in support of Review Board efforts.

As you requested, we have set priorities for some potential projects for Kodak to pursue on our behalf. Please review the list provided below and provide us with an estimate for the scope of work and cost of each work item:

High Priority:

- (1) Digitally scan and enhance, to the extent possible, the 3 latent post-mortem images of President Kennedy on the developed roll of 120 film.
- (2) Digitally scan the original Zapruder film, record the data on security-protected CD ROM, and analyze selected image content (related to motion of limousine and head wound).
- (3) Conduct film tests using a Model 414 PD Bell and Howell Zoomatic Director Series camera to determine whether the recognized anomalies in the Zapruder film theoretically attributed to claw flare, vignetting, development turbidity, first-frame inertial effect, and the design of the photoelectric cell are borne out by actual tests with 8 mm film. [Please advise whether the actual camera used by Zapruder would be necessary for a scientifically valid test (or add to the confidence in the results of a test), or whether use of a different camera of the same model from the Eastman House museum will provide equally meaningful and

scientifically valid results.]

(4) Digitize, analyze, and render judgments on selected autopsy images of President Kennedy in order to determine whether the photographic products in the Archives represent images which have been altered in any way (e.g., photos no. 15, 16, 42 and 43-- color positive transparencies and black and white negatives of back-of-the-head images).

(5) Examine, record and analyze edge-print information on all 4 National Archives copies of the Zapruder film (3 are labeled as first-generation, and one is labeled as second generation), and record best and final conclusions regarding age and pedigree of each of these 4 films. (ARRB desires Kodak do this on-site at the National Archives.)

(6) Examine, record and analyze edge-print information on the 35 mm format Nix and Muchmore films, and record best and final conclusions regarding age and pedigree of each of these films. (ARRB desires that Kodak do this on-site at the National Archives.)

#### Middle Priority:

(1) Perform a technical study of autopsy images that will address, to the extent possible, whether the existing autopsy images (color transparencies and black and white negatives) are camera-original images of three dimensional objects, or whether they could be photographs of other photographs. (This study would expand upon the "gamma curve"--optical density vs. logarithm of exposure--discussions held between ARRB and Kodak representatives during our September 11, 1996 meeting.)

#### Low Priority:

(1) Determine whether tests or further research can be conducted that would address the authenticity of the 3 x-ray images of the skull in the autopsy collection at the National Archives.

(2) Compare color autopsy images with black and white autopsy images, and determine whether anomalies exist between reds and blues in the color images, and the corresponding gray-scale in equivalent black and white images, based on types of film used.

For the record, I feel I should correct two inadvertent errors we noted in Mr. Zavada's report of

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December 19, 1996:

a. On page 4 of the Zavada report, the perforated I. D. numbers on the 3 first generation copies of the Zapruder film are misstated as 0184, 0185, and 0186; in reality the numbers were 0185, 0186, and 0187 (*see* receipts provided dated 11/22/63).

b. On page 5 of the Zavada report, the author refers to post mortem photography of the President as "Dallas Hospital operating room scenes;" this should have read "Bethesda autopsy scenes," since ARRB is unaware of any Parkland hospital photography from Dallas.

We look forward to receiving cost and feasibility estimates following your evaluation of the scope of the potential projects listed above. Please do not hesitate to call me should you have any questions, or require any clarification.

Sincerely,

David G. Marwell  
Executive Director