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- Attachment
A1-9 5 pages

June 18, 1998

Mr. Douglas Horn
ARRB
600 E. Street NW, 2nd Floor
Washington, DC 20530

Re: Film Map of Scene Lengths and Perforated Identification on Zapruder
Original and Copies

Dear Doug:

Per our conversation I reviewed my concerns about reconciling differences between scene lengths, orientation, perforated identification and print-throughs, contained in the "Film Map" you provided Kodak and what I plan to describe in my report as typical processing laboratory practice. You may wish to address some of these concerns by mail or telephone, or we may best consider them when I visit ARRB and NARA July 9.

1. In the Table for Secret Service copy 1, page 3, of your August 2, 1996, letter to David Marwell, you indicated that the original perforated number 0183 was not printed-through by the JAMIESON Film Company. We both agree that this was an error as the print-through 0183 was seen by Kodak on Secret Service copies 1 and 2 during our September 8&9, 1997 visit.

2. In Attachment 5, ^{*}of your "Film Map" of the Original Zapruder film, you have identified the original spliced within yellow, white, black and light struck leader. No doubt this special leader was used for the make-up of the print-master by EFX. Further, your length analysis¹ indicates:

* See A1-1C

¹ Note: your feet and inches are converted to decimal feet.

- Zapruder test exposures not identified
- Assassination film 6.25ft.
- Transition to D-Max (black) 2.58ft.
- Splice
- D-Max transition to fog (clear) 19.25ft.
- Splice
- Black film 6.17ft.
- Splice
- Black film 5.66ft.
- Splice
- Light-struck leader 6.75ft.

If we disregard the EFX laboratory's thread up leader, we can account for 28 ft. 1 in. of the Zapruder original. Considering the fogged film preceding the Zapruder test scene (or possibly also including that scene), and that the fogged film following the D-Max (which would have included a standard location of the laboratory's perforated identification), were removed, these discards most likely account for about 4 ft. to provide the expected yield of 32± ft. from Kodak's processing handling of the unsplit film taken to JAMIESON for printing.

Because the Zapruder film was split to 8mm following the printing of three copies, I would anticipate that most of the fogged side two thread-up leader would have been removed. Some of the side one integral thread-up leader may have also been removed to ensure wind-up capability with some freeboard on a typical 50-ft. plastic return reel (maximum capacity of about 60 ft.).

My belief, therefore, is that you have all of side two of the Zapruder original that he had when he departed Kodak. We note in your Attachment 14 that the laboratory-perforated identification 0183 was within the fogged film area of side 1, home movies. Typical thread-up fog is about 2 ft. and if the perforation placement followed standard practice and wound up as 8mm, Zapruder's return reel would have been filled to maximum capacity! (Note: I shall check with Dallas personnel to see if they recollect whether a 50 ft. or a 100 ft. return reel was provided to Mr. Zapruder).

3. I had my greatest difficulty with your Film Map Attachment 13 when trying to reconcile your measurements of Secret Service Copy 1 scene lengths and Kodak and JAMIESON film handling practices.

- The total footage is too long.
- The print-through location of the original perforated identification of 0183 does not match laboratory standard practice and is within a scene length that contains unreconcilable values.

In attempting to reconcile the footage of Secret Service Copy No. 1 (87.010; 1MPPSK (P) 8mm) you measured at NARA - you found:

- White leader 3.17 ft.
- Physical Splice
- D-Max (black) film to fogged (clear) to photographically printed splice 3.0 ft.
 - Clear with 0183 print-through 1.17 ft.
 - Home movie scenes 32.58 ft.
 - Physical Splice
 - Black film (D-Max) 25.33 ft.
 - Physical Splice
 - Assassination film 10 ft. 27 in.?? 12.25 ft.
 - or possibly 10 ft. 2.5 in.??...then (10.2 ft.)
 - or a total of 10 ft. as in Attachment 5 (10.0 ft.)
 - Photographically printed splice
 - Print through of leader?? 2.58 ft.

The mixing of measurement values of feet and inches greater than one foot should be reviewed. This is very significant for your measurement of the assassination sequence because:

- You do not identify Zapruder's test exposures.
- Your value of 10 ft. and 27 inches is inconsistent with your other values. We note that in Attachment 5, the original had only a total of 10 ft. (6'3" + 2'7"). Possibly you intended to identify 2 ft. 7 in. of black in Attachment 13 as you had in Attachment 5?
- It is not possible to yield 32.58 ft. of home movie scenes from a 33-ft. double 8mm-camera spool. We should anticipate that at least two foot of fog occurred when Zapruder originally loaded side one and a like amount when he is quoted as having loaded to side two. A reevaluation is mandated.
- The print-through 0183 is given a 14 inch length that is shown in addition to the home movies. Most likely it is within the measured home movie footage.
- Noting the above, it is understandable that the total footage is greater than the maximum potential of 65 ft. of 8mm (32.5 x 2). Your totals are 76 ft. 11in.
- Even if we assume the total assassination plus black sequence is 10 ft., and we total the other footage between the two photographic splices, we yield 69 ft. of 8mm film - 4 ft. more than the maximum yield of 65 ft. from a fully utilized customer double 8mm camera spool. (Thirty-three feet less 5-6 in. of manufacturer's perforation codes.) I believe the recording of your measurements needs to be reviewed.

4. In Attachment 14, we gain an unspliced confirmation that the laboratory perforated identification 0183 did not follow typical laboratory practice (i.e.

being placed on the customer tails of side 2). Note that here you clearly describe the sequence as: unspliced - fogged film; to print-through 0183 to fogged caused "overexposures" of woman in family scenes; to the balance of the family scenes. This logical sequence is not clearly presented in Attachment 13. If, with reexamination, we orient the image of the woman to determine if it is at the start or end of side one, we shall be able to determine where Kodak placed the perforated identification - at the heads or tails of camera side one.

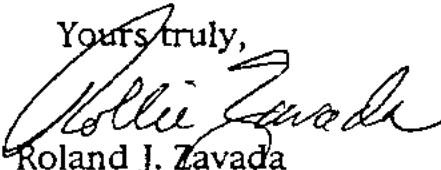
Further you show 32 ft. of Zapruder's side one, home movies, through to the physical splice. A critical dimension, however, is also the distance to the photographic splice, as that would confirm the yield of usable scene content within the thread-up allowance, including fogged film. The 32-ft. is a realistic maximum yield from the JAMIESON printing with minimum film loss from necessary laboratory splicing for printer thread-up leader and processing lab splicing to machine leader. I believe the footage values of usable scene content are important for the record and a reassessment is recommended.

5. Interpreting motion-picture scene sequences is not easy. Even for the experienced film handler. Looking at a film upside down and backwards requires careful orientation. Therefore, I have proposed a "guide" to show how a typical double-8mm customer camera film could be viewed and interpreted. I have enclosed a copy for your review and plan to include it in my report. I hope it helps.

6. Attached is a suggested draft agenda for my July 9 visit to Washington.

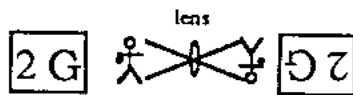
Doug, I hope the above will help you understand why I became so frustrated trying to reconcile processing and printing laboratory practices with the Secret Service copies held by NARA and your "Film Map". With a little rechecking, I believe we can develop a clear and concise profile of assembly, and orientation, of the cut-up portions of the Secret Service copies, to a logical interpretation for future archivists.

Yours truly,


Roland J. Zavada
Consultant for Kodak

Encl.

cc: J. Toner



Eyes View of Subject

Looking Through Film Base & Lens
-Image onto Film

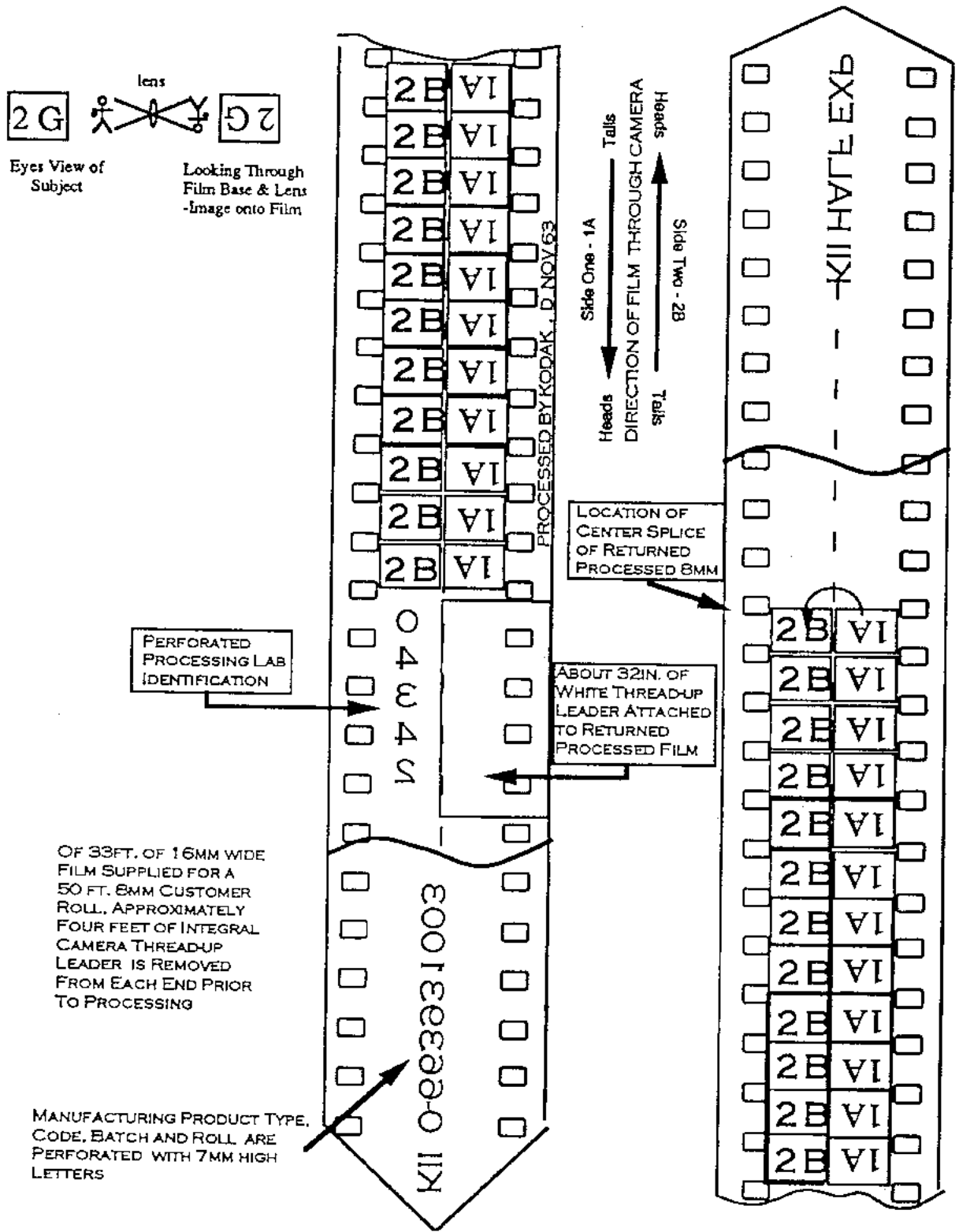


FIGURE 1-1 VISUALIZATION GUIDE FOR IMAGE PLACEMENT & PROCESSING LABORATORY IDENTIFICATION ON 8MM CAMERA FILM