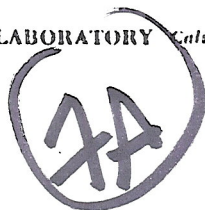




JET PROPULSION LABORATORY California Institute of Technology • 4800 Oak Grove Drive, Pasadena, California, 91103



384/IPL-BIP/78-233

December 21, 1978

Mr. Michael Goldsmith
Senior Staff Counsel
Select Committee on Assassinations
U.S. House of Representatives
House Office Building, Annex 2
Washington, D.C. 20515

DEC 27 1978
SIGNALS & LEADS

Dear Michael:

The purpose of this letter is to communicate some retrospective reactions to the Bronson 8mm film that we viewed on December 2 at Aerospace Corporation. I have discussed some of these points with Chuck Leontis and he agrees that a separate letter from me would be appropriate since his letter summarizes the group consensus on December 2. I am not incidently in disagreement with the report contained in the Leontis letter of December 11 but would perhaps more strongly recommend computer processing of this film for the following reasons:

1. To my knowledge, this is the only possible evidence of movement behind the two closed windows adjacent to the half-open window. I am referring first to the immediately adjacent window (labeled 1 on the attached diagram) and the second to the nearest section of the window under the curved brick facing (labeled 2). Every other photo or movie frame that I can remember shows these windows completely opaque, possibly due to a combination of dirt and sun glare. It is possible that slight window pane movement could create the appearance of rapidly moving objects. If so, the speed of shadow change, if clarified, could easily be distinguished from human movement. Such clarification could also indicate compatibility with human movement but in either case, the movement should be analyzed.

red
}

6

Mr. Michael Goldsmith

-2-

December 21, 1978

2. In the past, viewing of computer processed movie frames as a movie has been difficult because the Comtol display can only store and rapidly display three frames. The alternative was to photograph each output picture from the computer (or alternately, record each frame on file) and then to re-photograph the "stills" with movie film. This was not done because of cost and because it was not clearly indicated necessary in any single case.

This situation has changed to the extent that we have acquired a video disk system at JPL that allows up to 200 color pictures to be easily transferred from the computer to the disk and then sequenced at any frame rate on a TV monitor for viewing. I cannot commit the use of JPL facilities in this letter but I believe some future arrangement might be worked out if the type of effort described above was to be made. I will be glad to supply a more specific processing recommendation if you wish.

3. The original 8mm Bronson film is not only better than Hughes and better than the Groden copy of the Bronson film, but in the latter case, vastly better. To give an example, the lower window framing (see arrow #3) is so blurred on the Groden copy that it cannot be identified as a structural part of the window. On the digitized version of one Bronson original frame on the Comtol display, this structure was clearly evident and well defined.

As an interim alternative to computer processing, I strongly recommend as stated in the Leontis report of December 11, that RIT be funded (somehow) to make a high quality 16mm copy of just the enlarged window area directly from the Bronson 8mm original. If a first-order registration can be accomplished (i.e., forcing an identifiable point such as the corner of a window to appear in the same spot on each 16mm frame) this would be very helpful from a viewing standpoint.

P-7

red

Mr. Michael Goldsmith

-3-

December 21, 1977

I'm rushing this a bit because Christmas is about to descend on our office. Please do not hesitate to contact me if you want any further discussion of these issues. Hope you have a nice holiday.

Best regards,

Bob Selzer

Robert H. Selzer

cc: C. J. Leontis
J. L. Sigalos

red

?

p.8