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24 JAN 1983

MEMORANDUM FOR: Assistant Vice Director for Collection Management

Defense Intelligence Agency

Department of Defense

ATTENTION

: LTC John Kennedy, DI-E2

FROM

: Deputy Director for Operations

SUBJECT

: Transmittal of Photo Analysis

Attached herewith is the text and accompanying photographs of the Roy Townley project. As mentioned in the preliminary conclusions which were communicated telephonically, the results are inconclusive despite the use of all available technology. We authorize the passage to the Townley family of all or as much as your office deems appropriate of the below report:

A. "We compared the photograph you provided of Mr. Roy F. Townley, a former Air America pilot now listed as missing in action, to the other photograph you provided (Photo No. 109) of an unidentified POW in Vietnam to try to determine if the unidentified POW is Mr. Townley. We found what appear to be two similar facial marks in the form of a mole or lump on both photographs. These marks, annotated on the enclosed photographs, appear to be in or very near the same place on both faces. One is located just above the lip on the right side of the mouth and the second is near the right corner of the mouth. This was the only evidence we found, other than a similar general appearance, to indicate that the unidentified POW might be Mr. Townley. Based on these limited findings the results of our analysis are inconclusive and we can neither confirm nor deny that the unidentified POW is Mr. Townley. (S NF)

B. "The facial marks were found using the Interactive Digital Imagery Manipulation System. This is a process of transforming a photographic image into a computer controlled digital format. The digitized image is then studied through a microscope and is simultaneously displayed on a TV monitor. This process permits the analyst to change

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the image by increasing or decreasing the contrast, tone, and sharpness of the photograph. A false color can also be added and manipulated to help highlight features that may not be readily apparent on the original photograph. (C)

- C. "Both photographs were studied by three photogrammetrists experienced in mensuration techniques using photographs of individuals. Each photogrammetrist stated that accurate measurements cannot be obtained without information on the type of camera and lens, its focal length, and the full frame exposure. Accuracy of measurements is critical when comparing facial features because there are only minute differences in distances between the facial features on large numbers of people. Because of the lack of photographic parameters mentioned above plus not being able to clearly define several of the facial features on the unidentified POW, we were unable to use any mensuration techniques in our comparison study. In lieu of measurements we attempted to compare the relative distances between various facial features shown on the two photographs. We could not make an accurate comparison however, because the face-to-camera angle difference between the two photographs was too great. (C)
- D. "It is possible that an additional comparative study of Mr. Townley's facial features could be performed if a collection of several high quality, close range photographs were available. The requirements for this photographic collection would include: a range of face-to-camera angles (to provide photogrammetric geometry), high resolution and large scale (to resolve minute features), camera data or known dimensional information (to determine dimensional relationships), and if possible, full format original negatives. With the proper photographic collection, Mr. Townley's facial features could be accurately positioned using established photogrammetric techniques and procedures. Using this information as a data base, a dimensional comparison to the unidentified POW could be attempted. Under ideal conditions this type of dimensional study could prove valuable, but given the existing circumstances of poor quality imagery, elapsed time between photographs and changes in the individual's health and stature, any data that was obtained could very well yield inconclusive results. (S NF)
- E. "Forwarded for your retention are four annotated photo enlargements showing the results of our study. We are also returning the two photographs you provided." (U)



2. Our Headquarters has queried those persons who should be aware of any control tower tape made the day of the Townley disappearance, and none can recall such a tape having been made.

ATTACHMENTS: Photographs,	6	ea.