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ORD-0397-76

25 March 1976

MEMORANDUM FOR: Director of Research and Development
 THROUGH: Chief, Operations Technology Division, ORD
 SUBJECT: NPIC Support in Bird Camera Program

1. A Technical Collection Team (TACANA/TCT Task #1) has been formed to demonstrate the operational utility of an AVIAN asset. As a part of this effort, a new bird camera has been designed which weighs less than the old one and which uses a 16mm film with motion compensation instead of the 9mm size. Testing of this camera will continue through June of this year at which time the final demonstration is scheduled.

2. Initial tests by ORD with this camera surfaced four problem areas:

a. Reliable slicing of 70mm film (3400 and 3414) to the required 16mm format was difficult. Though the OTS slicing machine was used, the personnel involved were not familiar with its use.

b. Effects of humidity on the 3414 film and possibly improper developing of the film.

c. A lack of facility for obtaining good-quality enlargements of the negatives.

d. A lack of familiarity with available films which can provide good resolution at low light levels.

[redacted] DD/NPIC, recently briefed the DD/S&T and suggested that his people at NPIC could advise us on these problem areas. At subsequent meetings with [redacted] (NPIC), it was determined that NPIC could obtain a variety of film types directly from Kodak on the 16mm format and the required 2 1/2 mil thickness base. [redacted] further advised that there were special processing techniques and film types which should be investigated to best provide high resolution,

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low light level capability similar to those now being used on the mini-camera program. Discussions were also held with [redacted] (PSB/ISD/PSG), and his people have been most helpful in developing several rolls of film and providing several good-quality photo enlargements which have been extremely beneficial in evaluating the capability of this system.

3. To help in this program area, it is requested that NPIC provide the following support on a noninterfering basis:

a. Provide a minimum of 500 feet of 16mm film (2 1/2 mil base) of each of the following types: 3400, 3414, 5069, S0242, S0410, and any other types recommended by NPIC for this program.

b. Develop two to three rolls of this film per week as taken by the system. Make recommendations as to what kinds of film should be used and any precautions concerning handling requirements necessary for use in the field.

c. Provide enlargement photographs of selected negatives and give advice on the probable resolution potential of this camera system.

4. The chairman of the TACANA/TCT is [redacted] OTS/OPS/SDB.

Charles N. Adkins
Operations Technology, ORD

cc [redacted]

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