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(M)

~~SECRET~~ NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.



OFFICE OF THE DIRECTOR

December 9, 1968

Handwritten scribbles and initials.

Dear Herman:

I would like to express my congratulations and appreciation for the combined efforts of the several organizations within the Eastman Kodak Company which resulted in the successful color experiment on GAMBIT Mission 4316. Your SO-121 film and processing expertise, in conjunction with the camera subsystem, have produced a reported best ground resolved distance of [redacted] and excellent color on the original positive.

In the past, there has been considerable doubt expressed about the ability to collect high-resolution color photography of intelligence value from space. It now appears that, with proper systems design, the additive information afforded by color can be acquired when appropriate with considerably less detriment to resolution than heretofore believed possible. As you know selective use of color film is an important capability programmed for DORIAN.

We are continuing to work with the photo interpreters and analysts to determine the intelligence worth of color. The crossover point and trade-off between the higher resolution of black-and-white and the intelligence values of color are receiving much attention.

Possible requirements are now being discussed for color coverage of nuclear ore and processing plants, nuclear weapons tests, crop yields, camouflage, construction materials, dummy missile sites, water effluents, flooded areas, and many other specific problem areas. The possible use of color coding on various objects, equipments and installations of intelligence interest also offers many intriguing prospects for exploitation of color photography.

GAMBIT DORIAN

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It is the responsibility of the Intelligence Community to validate the requirements for future color collection. Your demonstration of the current level of capability on Mission 4316 has contributed materially to this effort.

I understand that we are faced with an additional problem in that there is a loss of information inherent in the reproduction of color photography through successive generations of duplicates. Since there is only one original positive with high resolution, it is received and evaluated by only one of many users. Others who receive duplicate positives must be content with about a 50 percent loss in resolution. This is impeding our efforts to evaluate the capabilities and limitations of color within the Community. I know the matter is also of concern to you and hope your continuing efforts in the Eastman Kodak Company can help to resolve this problem in the same excellent manner that has been demonstrated in acquiring the present level of capability for color collection.

Eastman Kodak is also to be commended for considering the merits of competitive products in the search for the best solution to the problem of the reproduction of high resolution color photography. This is a credit to your organization; it is apparent that you are placing primary emphasis on getting the job accomplished. I look forward to your continuing contributions in support of the National Reconnaissance Program and extend my best wishes for future success.

Sincerely,



Alexander H. Flax

Mr. Herman H. Wagershauser
Vice President and General Manager
Eastman Kodak Apparatus Division
Eastman Kodak Company
343 State Street
Rochester, New York 14650

GAMBIT DORIAN

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