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(S) NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.



RAR-13-18
201-2-6.
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THE NRO STAFF

26 January 1968

MEMORANDUM FOR COLONEL WORTHMAN

SUBJECT: Paper Mapping from Satellite Photography by Dr. Doyle

I believe this paper should not be released for publication because it indicates the present National Reconnaissance Program programs much too accurately. There are only a few items which are clearly derived from classified information, such as the fact that spacecraft resolution is better than the resolution we can obtain from aircraft (page 3). There are other facts which only a person who is thoroughly acquainted with the NRP would be aware of to the degree this paper shows. For example:

- (1) The discussion of resonant altitudes on page 5.
- (2) The fact that the minimum practical altitude is 80 NM, as mentioned on page 5.
- (3) The fact that stellar photography is necessary and feasible.
- (4) The fact that the Mark 5 recovery vehicle can be used to return film from orbit is clearly indicated.
- (5) The present practice of deboosting spacecraft from orbit is indicated on page 15.
- (6) The climatology problems are accurately described on page 18.
- (7) The use of thin base film is also mentioned on page 18.

There are several other incidental comments such as the fact that the proposed EROS system would have a resolution of 5.4×10^{-5} to 1.08×10^{-6} radians. This exceeds the definition of a reconnaissance sensor. The justification, while concentrating upon North America, also indicates that

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the economic analysis should consider coverage of South America (page 19), and it is pointed out on page 21 that 1:24,000 control can be obtained anywhere in the world by the use of the proposed system.



ALBERT W. JOHNSON
Major, USAF

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