SAPC-2181
Copy ____ of 6

17 October 1955

MEMORANDUM FOR : Project Director

SUBJECT : Minicard Equipment

25X1A 1. You will recall that the first time we discussed film processing equipment with Eastman Kodak the suggestion was made by [redacted] that we consider Minicard equipment in order to make the recovery of information at the Photo Interpretation Unit comparable with the system under procurement by OCD. Our decision to proceed along the lines of this suggestion was based upon the philosophy that through AQUATONE it was hoped to make available a new fund of knowledge which would be more comprehensive in some respects than textual fund of knowledge now in existence in the Agency but nevertheless complementary so that an analyst in seeking information concerning, for example, a specific locality could, in comparable operations, call for both types of material. Ideally information from AQUATONE would become part of the normal information files of the Agency so that in a single operation an analyst could retrieve all information concerning a particular area of interest.

2. Because of security considerations and the present space situation it did not appear to us to be possible to provide for the ideal type system. Some physical separation between OCD and the Photo Interpretation Unit appears to be dictated by present circumstances. Furthermore, our investigations reveal that the Minicard equipment ordered by OCD would have only a capacity sufficient to handle normal OCD material. As a consequence we decided to procure basic Minicard recording equipment as part of the AQUATONE system. The basic equipment was intended to provide a capability to produce Minicards on each useable photographic frame. The basic card would reproduce the entire frame and would contain initial information on scale, location, etc., which would be readily available at the time of film processing. The
STAT initial quotation was [redacted] to cover one camera, one processor, one cutter, and one basic sorter.

AQUATONE

STAT 3. Further consideration of the Minicard system and its potential use to supplement the capacity of the equipment being procured by OCD at a cost of [redacted] led to a revision of our Minicard requirements
25X1A which are reflected in a memorandum dated September 21, 1955 by Mr. [redacted] These changes include a substitute of two cameras for

DOCUMENT NO. ____
NO CHANGE IN CLASS. [X]
[ ] DECLASSIFIED
CLASS. CHANGED TO: TS S C
NEXT REVIEW DATE: 2011
DATE: 17-2-81 REVIEWER: 015410

Attachment

the single contact type previously ordered, one Minicard duplicator, one Minicard viewer, and four flexowriters. As a result of this change the AQUATONE capability on Minicard equipment for preparing basic Minicards and in producing new information would be complete and independent of the OCD system and could handle a capacity of 1500 frames in an eight hour day. Information retrieval through the use of a complex sorter was not provided for. The new total cost for AQUATONE Minicard equipment was thus brought to [redacted] STAT

4. In preparing specifications for the equipment required for the Photo Interpretation Unit it was originally thought advisable to provide an additional set of Minicard equipment which would have the capability of producing basic Minicards on material reaching the Photo Interpretation Unit from sources other than AQUATONE, reproducing Minicards upon the introduction of new data, and retrieving desired Minicards through the use of a complex sorter. The cost of a rather extensive Minicard installation contemplated for this unit is set forth in two memorandums dated September 27, 1955 by [redacted] 25X1A
25X1A [redacted] and it appears to be in the neighborhood of [redacted] STAT

5. In order to make a determination on the extent of Minicard equipment procurement which should be undertaken at this time it should be borne in mind that the Minicard system is new and checked out in simple prototype form. Resolutions for photographic work are not certain, operating capacities in the complex systems are not fully known, and optimum designs for our purposes have not been fully proven. There is no question that the system works and will, over the next several years, become an essential part of the intelligence business.

6. Based upon a consideration of the factors set out above, it appears that the Agency procurement policy on Minicard equipment should be:

a. Proceed as rapidly as possible with the procurement of OCD equipment for handling textual material at a cost of [redacted] for information retrieval. STAT

b. Proceed with procurement of the AQUATONE equipment described in the memorandum of September 21, 1955, mentioned above, which will supplement the capacity of the OCD equipment to an extent sufficient to accommodate the expected flow of photographic material.

c. Install the OCD equipment as presently planned, i. e., at the OCD Information Center.

d. Install the AQUATONE equipment initially in Rochester as an adjunct of the AQUATONE film processing plan in order to prove out the effectiveness and designs of the Minicard equipment intended for use for photographic material.

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e. Suspend procurement of Minicard equipment for the Photo Interpretation Unit until the AQUATONE equipment has been checked out.

f. When the AQUATONE equipment has been proven determine whether the capacity of this set of equipment is sufficient to take care of the needs of the Photo Interpretation Unit and if insufficient procure needed additional equipment.

g. Institute a research and development program at an estimated cost of [redacted] looking toward the development of Minicard Aerial Photo Stereo Viewers, Minicard Aerial Photo Comparison Viewers, a Minicard Collator, and a Minicard Code Printer. STAT

h. Pending the check out of the AQUATONE Minicard equipment through operation in Rochester, information retrieval from the AQUATONE take will be through the use of simple mission plots overlayed on maps.

i. Upon check out and approval of AQUATONE Minicard equipment in Rochester move the equipment to the location of the Photo Interpretation Unit and add such supplementary equipment as may be required to increase the usefulness of the Minicard mode of presentation and the use of the Minicard system by OCD. This additional equipment includes a document enlarger, a document and graphic index camera, an aerial photo enlarger, a complex selector, and aerial photo viewers. These items have been engineered either in part or in toto and except for the complex selector would not require extensive check out. Even the complex selector should not require a too extensive check out since it would be quite similar to the selector procured by OCD.

7. The steps outlined above appear to have the merit of providing the Agency with a Minicard capacity which could handle the flow of material both to OCD and the Photo Interpretation Unit since ultimately the AQUATONE product should become part of the information files of the Agency and be handled as normal incoming material. The AQUATONE Minicard equipment and the OCD Minicard equipment would together define the Agency's capability in this respect and when ultimately installed together would not exhibit unnecessary duplication. Additional equipment, as indicated in 6 i above, might be required for a fully rounded out Minicard preparation and retrieval system. Additional capacity can be provided by later procurement of equipment of the type indicated in paragraph 6 f. Procurement of such additional equipment can be started after some trial use of the OCD and AQUATONE equipment. Sufficient lead-time should be

available especially if one remembers that the flow of AQUATONE material will probably increase in volume from a rather modest start. In this way we can make maximum use of our experience on volume and equipment capacity to guide us in our procurement program.

6. Your comments on the above and specifically on the steps outlined in paragraph 6 would be appreciated so that the contractor can be advised at the earliest possible date.

HERBERT I. MILLER

HIM:vd