FOLLOWING THESE INSTRUCTIONS WILL EXPE[illegible]E PROCESSING
1. LIMIT REQUISITIONS TO ONE PAGE WHENEVER PO[illegible]E.
2. LIMIT REQUISITION TO ONLY ONE MATERIAL UNIT
3. PUT ITEMS WITHOUT STOCK NOS. ON SEPARATE REQUISITION

REMOVE PROTECTOR SHEET BEFORE TYPING — REPLACE AFTER TYPING

☐ SECRET ☐ CONFIDENTIAL ☐ UNCLASSIFIED

NAME OF CONTACT OFFICER	OFFICE	TELEPHONE	SIGNATURE OF APPROVING OFFICER	SIGNATURE OF TECHNICAL OFFICER
	NPIC			STATINTL

REMARKS

STATINTL

BUDGET CERTIFICATION: I CERTIFY THAT COST AUTHORIZATION AND/OR FUNDS ARE AVAILABLE. CHARGE COST CENTER INDICATED IN BLOCK ASTERISKED (*) BELOW.

STATINTL

SIGNATURE OF AUTHORIZING OFFICER	DATE

STATINTL

REQUISITION FOR MATERIEL AND/OR SERVICES

REQ'N. DATE	REQ'N. NO.	VOU. DATE	VOU. NO.
1 Mar 65			

FOR PROC. OBLIGATE ALLOTMENT NO.	REQUIRED DATE AT DESTINATION (NOT REQUIRED FOR ROUTINE REQNS. ENTER DATE ONLY IF REQUIREMENT IS FIRM)	DATE PROC. ITEMS REQUIRED IN DEPOT	DATE STOCK ITEMS REQUIRED IN TRANSPORTATION	TYPE I FPA / TYPE II FPA / OTHER:
* CHARGE COST CENTER NO. STATINTL				ACCOUNTABILITY TO BE ASSUMED BY STATION

CONSIGNEE	REFERENCE	
STATINTL	RECOMMENDED METHOD OF SHIPMENT (TRUCK, RAIL, SHIP, PLANE, OR POSTAL)	RECOMMENDED CHANNEL FOR SHIPMENT (COMMERCIAL, MILITARY OTHER)

Telegram LLH229 25 Feb 65 5:31pm

MARKING INSTRUCTIONS	PACKING INSTRUCTIONS

SOURCE PROC.	SOURCE WHSE.	POSTED INITIAL	POSTED DATE	STOCK CONTROL REMARKS
				Declass Review by NIMA / DoD

ITEM NO.	STOCK NO.	EXP	NOMENCLATURE	SC	QUANTITY	UNIT	UNIT PRICE	EXTENSION
					RELEASED	ACTION	S-A-C	LOCATION
1.	STATINTL		[redacted] VWFR Machine Quartz Lens Element #3		1			
2.	STATINTL		[redacted] VWFR Machine Quartz Lens Element #4		1			
			Job Number: 165					
			Last Item					
	STATINTL		[redacted]					

SECRET 3/1/65

[redacted] states; send an 88 Requ form covering both items. Make a note that lens #3 had been broken at plant prior to shipment, that we broke #4. Also send copy of quote etc — so they may have something to work from.

Put sufficient funds to cover the installation etc — so they won't have to come back for add'l funds. Then — he'll push for the earliest delivery.

[redacted]

Note: Did the Tec. rep report damage to the #3 lens upon receipt? This should be made a part of the contract folder. [redacted]

SECRET

CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

SF-1201 (4-60)

SYMBOLS
DL = Day Letter
NL = Night Letter
LT = International Letter Telegram

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination

LLH229 OB192

1965 FEB 25 PM 5 31

O JDA344 NL PD JD [redacted]

[redacted]

REFERENCE [redacted] VWFR MACHINE QUARTZ LENS ELEMENT #3 IS [redacted]
EACH AND QUARTZ LENS ELEMENT #4 IS [redacted] EACH DELIVERY
IS 120 DAYS ARO. [redacted] WILL INSTALL IN LAMPHOUSE IF CUSTOMER
SENDS LAMPHOUSE TO [redacted] INSTALLATION AND ALIGNMENT SHOULD NOT
TAKE OVER TWO DAYS AT [redacted]

[redacted]

[redacted]

STATINTL

Job No. 165

25 February 1965

STATINTL Reference: [redacted] VWFR Machine

Gentlemen:

Your technical people have requested a price and availability of lens element #3 and #4 manufactured from quartz material. Quartz lens element #3 is [redacted] each; STATINTL
STATINTL quartz lens element #4 is [redacted] each. Delivery is 120 days ARO and the price quoted is f.o.b. delivered East Coast; terms net 30 days.

In the event an order for the above material would be STATINTL issued, [redacted] would at no additional charge install and align these lenses in the present lamphouse if the lamphouse STATINTL were forwarded to [redacted]

We thank you for the opportunity of quoting on your requirements.

Very truly yours,

STATINTL [redacted]

STATINTL [redacted]
Business Manager

BCJ:lhf

STATINTL bcc: [redacted]
I.N. File 686

[redacted] 28 Jan 65

997053

NPIC/D-7-65

22 JAN 1965

MEMORANDUM FOR: Assistant Deputy Director for Intelligence

SUBJECT : Obligation of Funds to Finance Overrun on Research and Development Project

REFERENCE : DDCI Memorandum ER 63-88121, dated 23 December 1963: Approval of Research and Development Activities

1. In compliance with paragraph 5b of the reference, approval to 25X1A obligate funds in the amount of [redacted] to finance the overrun described in Annex "A" is requested.

25X1A

2. The contract in question was let in June 1963 with the [redacted] 25X1A and called for the development of a prototype Variable Width Film Reader 25X1A on a CPFF basis in the amount of [redacted]

3. The overrun was incurred as a result of design problems which had to be solved in order to produce a piece of equipment which would meet our requirements.

25X1A [redacted]

ARTHUR C. LUNDAHL
Director
National Photographic Interpretation Center

Enclosure:
Annex "A"

25X1A [redacted]

APPROVED: _____ 25 JAN 1965
PAUL A. BOREL Date
Assistant Deputy Director for Intelligence

Distribution:
Orig. & 1 - NPIC/AS/LB
1 - Director, NPIC
1 - A/DDI
2 - NPIC/P&DS/DB

RESEARCH AND DEVELOPMENT
PROJECT APPROVAL REQUEST

25X1A I. Identification

The Plans and Development Staff, NPIC, under Contract [redacted] is having designed and built by [redacted] a prototype Variable 25X1A 25X1A Width Film Reader. This instrument is scheduled for delivery and installation in late December 1964, and incorporates the liquid film gate approach to the film cooling problem.

II. Background

25X1A The Reader as being designed and built by [redacted] 25X1A [redacted] includes a liquid film gate approach to the film heating problem created by the intense illumination required at high 25X1A magnifications. It was understood by [redacted] at the time of contracting for the Reader that sufficient information was available through a previous contract with the [redacted] on liquid film gates 25X1A to permit them to accomplish the gate design with a minimum of effort. 25X1A On evaluation of the [redacted] work, it was determined that an 25X1A insufficient amount of information was available and the [redacted] would have to conduct their own breadboard design phase.

Additional problem areas not anticipated in the initial proposal occurred in the following technical areas: 1) due to the complexity of the liquid gate it was necessary to design a relay condenser system; 2) the capstan design system originally proposed did not work satisfactorily and a different capstan system had to be designed; 3) a refrigeration cooling system was originally proposed but this was later changed to a water cooled system after many of the components had been purchased and considerable design effort was expended; 4) after fabrication of the machine an excessive amount of vibration was present in the projected image and the cabinet had to be stiffened to eliminate the vibration; and 5) an azmuth indicator, which was not in the original proposal, was required to increase the versatility of the equipment.

III. Contract and Financial Arrangements

25X1A The original contract with [redacted] for the 25X1A Variable Width Film Reader was for [redacted] on a CPFF basis. The 25X1A requested overrun, including G & A and overhead is for [redacted] 25X1A which will increase the total adjusted cost to [redacted] The 25X1A recommended action consists of increasing the funds available under the contract to a ceiling of [redacted] to satisfactorily complete 25X1A the instrument.

IV. Coordination

25X1A This additional impending contractual action has been coordinated with OL/PD and [redacted]. It is scheduled for presentation to the TDC on 10 December 1964. No further coordination of this project is deemed appropriate.

25X1A [redacted]

NPIC/D-8-65
14 January 1965

MEMORANDUM FOR: Assistant for Plans & Development, NPIC

25X1A SUBJECT: Overrun on Contract [redacted] for Variable Width Film Reader

1. I have been presented with the TDC Minutes of 25X1A 10 December 1964 and asked to approve an overrun of some [redacted] on a base contract of [redacted] after the contract 25X1A had been completed and, indeed, the instrument prepared for delivery to the building. In turn, I am to justify this to the Director, NPIC and the Deputy Director (Intelligence) and ask them to approve it. I understand that a variety of problems arose during the performance of this contract, important among which was the lack of detailed information on the liquid gate which presumably was to be furnished by 25X1A the [redacted] I note further that as far back as April your monitor was aware of and noted in his inspection report the fact that this contract might overrun by 10%. No action was taken at that time to refer the matter to TDC or to me. Again in October it was noted in an inspection report that this contract would overrun, this time the 25X1A estimate having been raised to [redacted] Once again no action was taken. Now, when it is too late to take any action other than approve what in fact is a "fait accompli" I am forced to sign off and justify an overrun of better 25X1A than [redacted]

2. An overrun of this magnitude should have been brought to the attention of the TDC when first discovered by your contract monitor. There is no point in having a Committee meet and deliberate on projects, for me and the Director to review and validate them, and then have the DD/I and, indeed, the DDCI sign off on them only to have overruns later develop which are not called to the attention of approving authorities until any action other than approval

25X1A

SUBJECT: Overrun on [redacted] for Variable Width Film Reader

is too late. At the best I call this careless work - at the worst gross neglect for which I hold you and the seniors immediately under you in charge of this program fully responsible. I do not expect to see a recurrence of this type of problem again.

25X1A

[redacted]

Executive Director, NPIC

25 January 1965

MEMORANDUM FOR THE RECORD

STATINTL SUBJECT: Overrun on Contract [redacted]

STATINTL 1. To better understand the problems behind the [redacted] Variable Width Film Reader the following summary of events has been prepared.

STATINTL 2. When the proposal for the reader was ~~xxxx~~ requested, [redacted] was given the understanding that information on the liquid film gate would be made available to them if they were awarded the contract.

STATINTL After being awarded the contract [redacted] sent personnel to the [redacted]

STATINTL in [redacted] to determine the extent of the information available

STATINTL to them on the liquid gate and the light source which was associated with it at that time. After evaluating ~~xxxxxxxx~~ this information, it was determined that it was of little help to them and that they would essentially have to start from scratch in both the liquid gate and light source problems. This involved research and design effort in excess of

STATINTL what [redacted] anticipated. However, they chose at ~~xxx~~ that time not to request increased funds ~~x~~ because they felt they could not determine valid pricing information at that time.

3. From approximately August 1963 to about February 1964 design preceeded on the ~~xxxx~~ reader at a slower than usual rate because of the extra work required on the liquid gate and light source. By April 1964

STATINTL it was ~~xxxx~~ apparent that [redacted] would not complete the task within allocated funds, and it was so stated in the 29 April 1964 ~~xxxxx~~ Contract Inspection

STATINTL Report. At this time [redacted] estimated they x could complete the project

STATINTL for an additional 10% over the contract price of [redacted] and did not

plan to ask for a overrun at that time and therefor did not notify the

Contracting Officer. As the work progressed, it became apparent that to complete the ~~x~~ job would require more funds than they originally estimated. At this time I requested that if an overrun was to be requested that they take careful consideration of the funds required to complete the job so that multiple overruns could be avoided. It was also pointed out to them and they fully understood the consequences, that I had no authority to commit funds for the Government, and any money they spent over the allocated funds was at their own risk.

4. It should be noted that all Contract Status Reports from April 1964 through the present, indicated that they would not remain within allocated funds, and that the Contracting Officer never contacted them as to their financial status as a result of these reports. By STATINTL September it was obvious to me that an overrun of approximately [redacted] was anticipated and it was reported as such on the 1 October 1964 report. STATINTL During my September inspection visit, I informed [redacted] again that they were spending funds without authorization and requested that they take ~~immediate~~ immediate action to correct the situation.

5. On the 29th of October, they finally submitted a request for STATINTL overrun to the contracting officer at [redacted] They did not send a copy directly to me but I was verbally ~~informed~~ informed of this action STATINTL by their local representative [redacted] upon receipt of the information STATINTL copy which was hand-carried to me by [redacted] and was the copy sent STATINTL to [redacted] for his information.

6. I have yet to see a copy of the overrun request come to NPIC through official channels. To the best of my knowledge all copies STATINTL available in the NPIC to date are copies of the [redacted] internal correspondence.

7. After waiting several weeks for the request to come through channels, I checked back to [redacted] LB/SS, STATINTL and they understood that I had received the information through the local representative and therefore did not bother to foreward a copy. At that time I then began to prepare the overrun for TDC action. This action was then taken up and approved by the TDC on 10 December 1964 (approximately six weeks after the request was made by [redacted] STATINTL

8. To date, I have not been questioned by anyone outside the Plans and Development Staff concerning the progression of this contract except for a couple of informal telephone questions by [redacted] STATINTL The reader was delivered to the NPIC on 28 December and is [redacted] STATINTL presently being debugged.

[redacted] STATINTL

SECRET

23 September 1963

MEMORANDUM FOR: Assistant for Administration

25X1A ATTENTION : [redacted]

25X1A SUBJECT : Concurrence with [redacted] Request for Sub-Contract Authorization

25X1A [redacted] has requested authorization to enter into

25X1A a sub-contract with [redacted] on Contract [redacted]

25X1A This proposed sub-contract is in concurrence with technical discussions during the undersigned's last inspection visit and is considered necessary

25X1A to achieve the best possible design. The proposed price of [redacted]

25X1A represents less than [redacted] of the total contract price and represents the only anticipated sub-contract.

25X1A signed [redacted]

Development Branch, P&DS

Distribution:
Orig & 1 - Addressee
2 - P&DS/DB

SECRET

STATINTL

18 September 1963

Attention: Contracting Officer

Reference: Contract [redacted] STATINTL

Gentlemen:

Pursuant to Article 13, Paragraph B, of the Terms and Conditions applicable to the above contract, it is required for performance of this contract that [redacted] enter into a STATINTL sub-contract with the [redacted] The sub-contract will cover the work described in the attached "Statement of Work." This work does involve to a degree the elements of STATINTL experimental, development, or research work. Their offer to accomplish this work is on a firm fixed price of [redacted] This price is considered fair and reasonable compared to past similar type of work.

Your concurrence with our action is requested.

Very truly yours, STATINTL

[redacted]

[redacted] STATINTL

BCJ:lhf Business Manager

Enclosure

cc: [redacted] STATINTL

STATINTL WORK STATEMENT FOR [redacted]

STATINTL 1. In accordance with [redacted] Drawing E326, provide:

a. Specifications for all lenses (complete information sufficient to define each lens for purchase).

b. Two or more recommended sources of supply for each lens.

c. A definition, verbal and/or graphic as required, of any unusual lens mounting requirements.

d. An optical schematic of the entire illumination and projection system covering all magnifications and film sizes be employed.

e. A lamp specification, verbal and/or graphic, in such detail as required for purchase.

f. Source of supply recommended for the lamp and an alternate source with information as to the performance penalty for using the alternate.

g. A statement as to whether a corrector will be needed in the optical path to compensate for the film platen glass.

h. Design of a corrector, if needed, to be finished by 1 December 1963 based upon receipt of (g.) above by 1 November 1963.

i. Pechan prism error analysis giving the amount of blur occuring at the screen due to the use of Pechan Prisms for image rotation. Due Monday, 23 September, and to be expressed in terms of blur in fractions of an inch versus surface flatness of the Pechan prism in wavelengths of any specified monochromatic light.

j. Recommended screen material and alternate to provide picture color compatible with ease of viewing, sharpness of image and customer's expressed wish for a blue image.

k. Recommended source of supply for screen and alternate including specifications for purchase.

2. Periodic meetings will be arranged for the exchange of information. The first of such meetings will be discussed by phone 20 September. At that time Pechan error data and decisions regarding projection lamps will be discussed.

STATINTL

STATINTL

29 October 1964

Attention: Contracting Officer

STATINTL Reference: Contract

Gentlemen:

In reference to the above subject contract, the contractor has recently completed the estimates for cost at completion on the above contract and will require funds in addition to those presently committed under the contract.

STATINTL The contractor estimates that an additional will be required to complete the performance within the scope of work included in this contract. Cost breakdown in substantiation of this amount is forwarded herewith as Enclosure 1.

In reviewing the cost at completion, it should be noted that there are several major factors contributing to this requirement for additional funds. The most outstanding of these is the cost of the liquid gate system.

STATINTL The basic proposal by assumed transfer of extensive design information from a corporation which had done earlier work on a liquid gate. It had been assumed that the gate, which had been tested by the other corporation, would require only STATINTL adaptive changes to the design in order to fit it to the system being made by In actual fact, there were no detail drawings or assembly drawings available which STATINTL could have been of any use. The gate demonstrated to consisted simply of a fixed metal frame having two transparent sides. The demonstration of performance consisted only of suspending a piece of film, stationary and vertical, between the transparent sides and illuminating it by a high intensity lamp. There was no provision in the gate for moving the film, for driving it with a capstan or for drying. STATINTL Those problems had to solve in the design of the equipment. To perform to the scope of work, had to build a separate experimental gate. The problems associated with film motion, freon flow, temperature control and the capstan drive had to be solved before proceeding with the final machine design.

29 October 1964

Associated with the gate and related mechanical systems are well over 100 detailed drawings and sketches. Those were necessary in order to produce the parts for the experiment. For the final machine further engineering and drafting was required in order to adapt the experimental equipment, used to demonstrate the first of the gates at [redacted] to a functioning piece of operational hardware. Merely the production of that many drawings can be seen as a major factor in the difference between the work [redacted] had anticipated performing and that which we actually had to perform.

STATINTL

STATINTL

The second area on which a considerable amount of time was spent was the illumination optics. Originally, we felt that the requirement for producing high illumination levels on the screen would be relatively easy to attain with a conventional optical design, and our proposal reflected this point of view. However, as the machine began to take shape mechanically, and since a design objective was to minimize floor space, we found that the optical design had become severely complicated. The original concept of the machine as proposed assumed a greater amount of space available within the machine structure for placement of the lamp. Final selection of a lamp and design of a lamp house resulted in a structure which was too large to incorporate within the body of the machine. That required shifting the lamp a considerable distance from its optimum position, resulting in the need for an optical relay system. The need for that type of design became apparent after the optical design had been under way for some time. This, in turn, reflected back into the mechanical design which also had been under way for some time. The result was costly insofar as anticipated time and labor hours were concerned because a significant amount of the mechanical design had to be altered, and due to changes in the optical design, this occurred at least twice. The final system provided an image of the arc at a point intermediate on the optical axis between the lamp and the film gate. In order to do this a number of lenses were required and their insertion into, and removal from the optical path was accomplished only with considerable complication of the electronics which controlled lens changes. Of course, the mechanism required to actuate the several turrets containing the change lenses was quite complicated and demanded space where heretofore there had been no need for space. This, in turn, forced re-location of other components of the system including a winding drum for hoses and cables

29 October 1964

and thus a chain of changes was introduced which had a substantial effect on schedules and cost.

As a part of the freon cooling system, we originally designed a liquid-to-air heat exchanger since the required film temperature had to be kept about equal to room temperature. For the freon to cool it, the freon then had to be reduced below room temperature to guarantee that the heat would flow from the film to the freon. The only possible way of maintaining freon inlet temperature below ambient involved using a refrigerating system. Our initial design, therefore, employed a refrigeration system and our design work made room for this system within the body of the equipment. That absorbed considerable time and effort. Subsequently, it was determined that the refrigeration system could be placed externally in a separate utilities package. Because of crowding within the machine body resulting in the need for an optical relay system which occurred well into the design, the removal of the refrigerating system to an outside utilities package was most welcome. Nevertheless, the change did consume time and did therefore cost additional money. At a still later stage in the design, cooled water was made available at the installation site. Since that made possible the elimination of the refrigerating system and a simplification both as regards the number of packages which constituted the machine as well as in the fluid circuitry, that was the final concept adopted. It is apparent, therefore, that in achieving the design goals for the equipment, the pertinent ones were compactness, reliability and minimum complexity. To achieve these we were forced to go through what amounted to three separate approaches to a single problem.

In the area of the capstan, our original design employed a differential liquid pressure capstan. That capstan was designed and built to be incorporated in the experimental model prior to its adaptation for the final machine. Since measurement of distance along the length of the film was to be accomplished by counting the number of revolutions of that capstan [redacted] felt that capstan design was basic to machine performance. We also felt that any design technique that could be used should be employed to guarantee minimum likelihood of slippage between capstan and film. Therefore, since the use of a capstan having holes in it, and employing a reduced internal pressure to assist in

STATINTL

clamping the film tightly to its periphery has been a common practice in applications having similar requirements, such a design was tried first. Several variants on that design were tested, but none of these performed as satisfactorily as, or was as simple and inexpensive as a plain rubber covered design. The problem has now been solved by the use of a rubber covered capstan, but the trial models of differential pressure capstans consumed significant amounts of time and were not considered in our original cost estimate.

During fabrication of the equipment, it developed that the structure had inherent instabilities which led to image motion on the screen whenever the machine frame was lightly touched or whenever there was source of vibration nearby. Correction of this required the addition of heavy stiffening members to the frame and consumed substantial manufacturing time.

The illumination system for 48X magnification is designed to reduce the size of the light spot incident upon the film so as to illuminate only that area which is seen by the 48X lens. Thus, all of the light from the lamp is directed through that area and thence to the screen. The advantage of that lies in being able to maintain the highest practical illumination level on the screen as well as in maintaining good design practice. The disadvantage is a serious one: The concentrated light means also that the heat incident on the film also is concentrated. Removal of that heat therefore requires a considerably more sophisticated approach to cooling than at the bottom range of magnification. Although the optical system incorporates filtration of infra-red and ultra violet ends of the spectrum prior to the light reaching the film, some concern was felt over the efficiency of filters and several attempts have been made to optimize the absorption of heat prior to the film. These attempts have been over and above the criteria for the original optical design and thus cost has been increased beyond what was expected.

At 48X and 24X it is apparent from experiment that the image on the screen is distorted significantly due to the piece of glass in the film gate between the film and the projection lens. In order to display an accurate image on the screen, it has been necessary to design compensating lenses for both

29 October 1964

magnifications. The design of these lenses and the mounting design as well as the installation was not anticipated in the original bid.

During operation of the system after it had been assembled, and while it was being tested, the optical system was thoroughly adjusted to optimize it. The system logged many hours of operation with no casualties. However, for an undetermined reason, after a considerable operating time one lens in the lamp house cracked. It had not been mishandled. Cracking may have been caused by an unusual combination of operating conditions. Replacement of that lens is necessary before the machine will function satisfactorily. This was not accounted for in the original bid.

After observing operation of the machine during testing, it became apparent that several refinements were necessary. A light shield was required around the rear of the machine to reduce light spillage as much as possible. The release of freon vapor from the tank containing the supply reel when reels were changed is objectionable. Therefore, a ventilating system had to be added above the tank which could be brought into operation the moment the tank was opened. Manufacture and installation of these devices was not considered in the original bid.

Finally, during operation of the equipment in test it was found that residual material frequently left on the surface of the film from normal processing operations was dissolved by the freon. As the film was reeled back onto the supply spool preparatory to removing it from the machine, droplets of freon would adhere to the film and in drying, leave a detectable residue. To avoid this it was decided to incorporate air jets in the tank holding the supply reel to strip off any freon from the surface of the film. This became a requirement after design and fabrication of the entire system had been completed, and therefore constituted a reason for the expenditure of additional funds.

Indications of this requirement for additional funds were anticipated earlier. However, due to the complex nature of the equipment it has been only recently that we have been able to provide a firm estimate of the cost to complete. It STATINTL is requested that the appropriate contractual amendment be issued under the subject contract to provide for an adjusted total cost of [redacted] and a STATINTL fixed fee of [redacted] resulting in a total of [redacted]

STATINTL The new delivery date at your facility is December 15, 1964.

29 October 1964

STATINTL

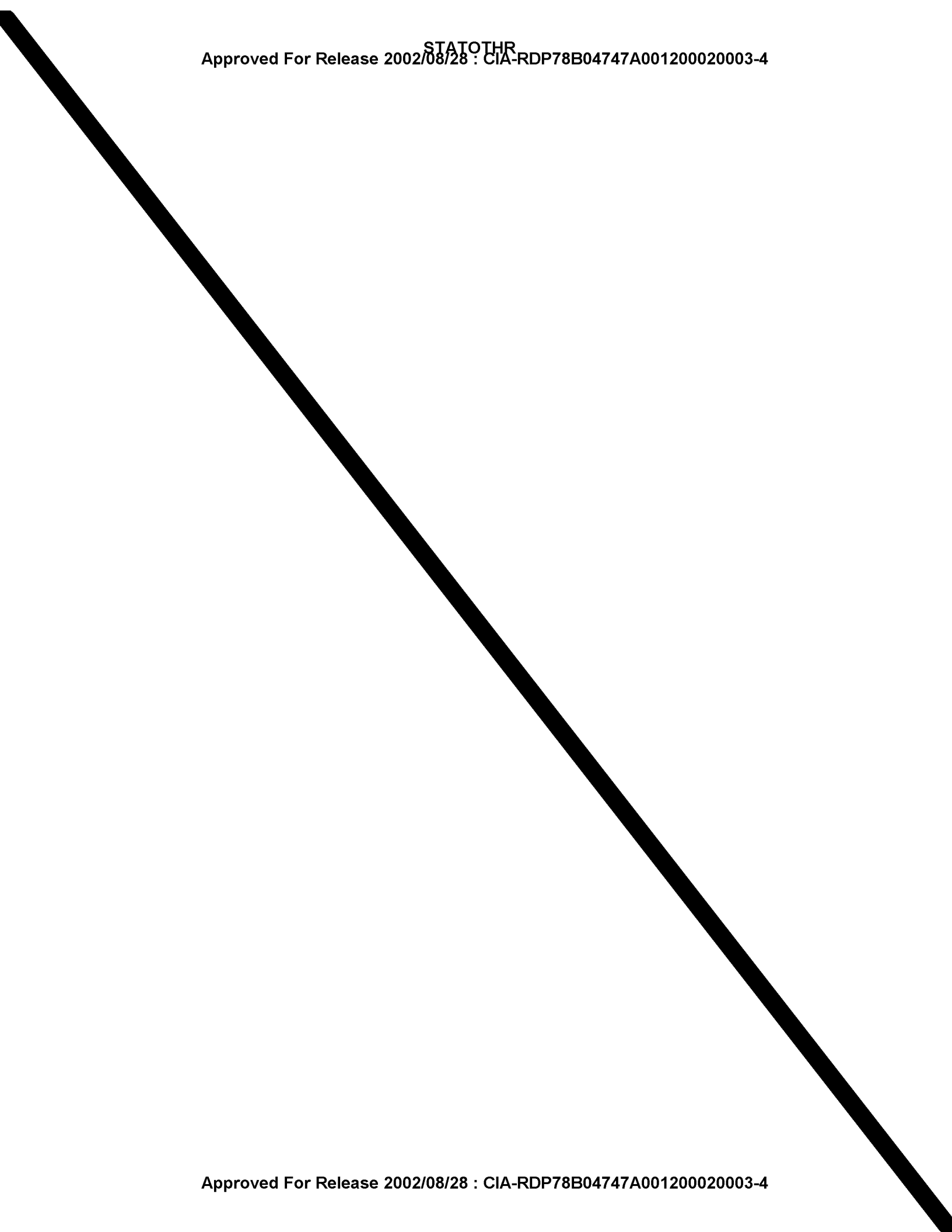
STATINTL In the event additional information is required, please contac

Very truly yours, STATINTL

STATINTL

Business Manager

Enclosure 1 - Cost Breakdown



STATINTL

STATINTL
X

[redacted]

EPIC 3601

[redacted]

STATINTL

STATINTL

[redacted]

[redacted]

1 Reader, film, variable width per ltrs. dtd 19 April 1963 and 9 April 1963 and technical proposal I.N. 462- Revision "A". (Contract should include delivery and installation in Washington, D.C.) 1 1 ea

STATINTL

SOURCE: [redacted]

NOTE
"Technical Background Pro-
curement Information"
attached.

Next 3 Page(s) In Document Exempt

25X1A

(SCHEDULE)	CONTRACT/TASK ORDER NO. Contract	PAGE OF PAGES

25X1A

SCOPE OF WORK:

The Contractor shall provide the necessary facilities, services and material to produce and deliver a Variable Width Film Reader in accordance with the "Design Requirements For a Variable Width Film Reader" which were provided by the Government and the Contractor's Technical Proposal I.N. 462 Revision A dated 5 April 1963.

The "Design Requirements" and technical proposal are incorporated herein by reference and made a part hereof.

DELIVERABLE ITEMS:

1. Variable Width Film Reader delivered and installed at Washington, D.C. (Consignee Address to be provided at later date)

2. Operational, maintenance and spare parts manual

3. PERT Charts and technical progress report to be furnished monthly

   (a) Three (3) copies to Sponsor's Technical Representative

   (b) One (1) copy to Contracting Officer

4. Engineering Drawings and Specifications

GOVERNMENT FURNISHED EQUIPMENT:

A Digital Accumulator will be sent to the Contractor as Government Furnished Equipment to be incorporated in end item.

25X1A

NAME

SECRET
(When Filled In)

3011

25X1A

CONTRACT INSPECTION REPORT

CONTRACT NO.

TASK NO.

TO:

ENGINEERING SECTION/CB/PD/OL

DATE

1 December 1964

INSPECTION REPORT NO. *(If final, so state)*

15

ESTIMATED COMPLETION DATE

30 December 1964

NAME OF CONTRACTOR

25X1A

TYPE OF COMMODITY OR SERVICE

Variable Width Film Reader Prototype

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☒ NO *Refer to report dtd 1 Nov 64.

PER CENT OF WORK COMPLETED 95%

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☐ YES ☒ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☐ YES ☒ NO *(If yes, give details on reverse side.)*

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO
(If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ EXCELLENT
3. ☐ ABOVE AVERAGE
4. ☒ AVERAGE
5. ☐ BELOW AVERAGE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED

☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

☐ TERMINATE

☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR

18 November 1964

25X1A

SIGNATURE OF INSPECTOR'S

DIVISION

P&DS

25X1A

FORM 6-64 1897 USE PREVIOUS EDITION (12-36)

SECRET
(When Filled In)

GROUP 1
Excluded from automatic downgrading and declassification

CONTRACT INSPECTION REPORT

CONTRACT NO. | TASK NO. 25X1A

TO: ENGINEERING SECTION/CB/PD/OL

DATE: 10 May 1965

INSPECTION REPORT NO. *(If final, so state)*: 16 FINAL

ESTIMATED COMPLETION DATE: See reverse COMPLETE

NAME OF CONTRACTOR 25X1A

TYPE OF COMMODITY OR SERVICE: Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☒ NO

PER CENT OF WORK COMPLETED - 100%

PER CENT OF FUNDS EXPENDED - 100%

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☒ YES ☐ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☐ YES ☒ NO *(If yes, give details on reverse side.)*

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO *(If yes, indicate items, quantity, and cost on reverse side.)*

INCENTIVES

IS THIS AN INCENTIVE CONTRACT ☐ YES ☒ NO

IF YES, CHECK TYPE ☐ COST ☐ PERFORMANCE ☐ DELIVERY

NOTE: USE REVERSE SIDE FOR COMMENTS. FINAL REPORT MUST CONTAIN INCENTIVE EVALUATION.

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ EXCELLENT
3. ☐ ABOVE AVERAGE
4. ☒ AVERAGE
5. ☐ BELOW AVERAGE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED ☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

☐ OTHER *(Specify)*

☐ TERMINATE

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT PUT COMMENTS ON REVERSE IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES	X		MANUALS	X	
DRAWINGS AND SPECIFICATIONS	X		FINAL REPORT		X
PRODUCTION AND/OR OTHER END ITEMS		X	SPECIAL TOOLING		X
			OTHER GOVERNMENT PROPERTY	X	

DATE OF LAST CONTACT WITH CONTRACTOR: 23 April 1965

SIGNATURE OF INSPECTOR 25X1A

DIVISION: PD/OL

INSPECTOR'S

SIGNATURE OF APPROVER

FORM 1897 USE PREVIOUS EDITION ☐ UNCLASSIFIED ☒ CONFIDENTIAL ☐ SECRET

NARRATIVE REPORT ☐ INTERIM ☒ FINAL

All deliverable items required under this contract have been received and accepted. The equipment is not fully operational as yet due to broken condenser elements which have been ordered separately and are not covered by the contract.

Approved For Release 2002/08/28 : CIA-RDP78B04747A001200020003-4

[redacted]

STATINTL

6 November 1964

Dear John:

1. The new condenser lenses for 48X are due in on Monday, 9 November. These lenses are made to the new calculations provided by [redacted] so that on 48X we will have proper coverage.

2. As you remember, on 48X resolution was very poor in the corners. By bench tests we confirmed that the lens was not functioning well off axis, so we obtained a new lens, a [redacted] 50 mm at f 2.0. STATINTL Bench tests show that its resolution 15 inches off axis is better than 300 lines per millimeter. However, it does fall off into the corners of the screen area. This was resolution of the lens itself on the bench without a screen.

3. We are enclosing a set of figures for light distribution taken before final alignment. You will notice a general offset to one side--that is, the light is more intense at the right of the screen, and somewhat greater at the bottom than at the top, for all magnifications. This asymmetry will be corrected when the lamphouse is aligned finally.

4. Frame Stiffening.
The picture is greatly improved since the frame was stiffened although there is still some jiggle apparent on 48X when the machine is banged heavily.

5. Replacement for element 3, which is the cracked element in the lamphouse, is due in the house in two weeks, that is 16 November.

6 November 1964

6. In order to prevent further cracking of lenses in the lamphouse, passages for air cooling have been drilled. The lamphouse blower will help to keep air moving between the lenses.

7. The fine focus mechanism has been reworked to provide both longer travel and faster travel. The new focus adjustment seems to have a good feel.

8. The joystick speed control has been changed so that image motion at all four magnifications has approximately the same range. The maximum speed in any range of magnification can be changed by the simple expedient of changing one resistor on a board under the control console. Thus adjustment can be made for individual preference.

9. The detent on the scan joystick has been improved, and it is now very positive.

10. To dry the film, two air nozzles were installed in the low pressure housing on each side of the film, just after the subtraction rollers.

11. In conjunction with the air nozzle for film drying we have built a hood for exhausting Freon vapor during the drying process. The hood is supported on a swinging arm, attached to the frame, so that it is convenient to use.

12. The gasket on the low pressure lid has been replaced with the same material that had been used on the high pressure side.

13. We are also enclosing resolution tests we made, comparing a target in Freon (with 0.5 inches of glass platen) with a target set on top of the platen. This indicates the effects of the platen glass.

14. Corrector lenses for 24X and 48X are ordered, and should be here about 16 November 1964.

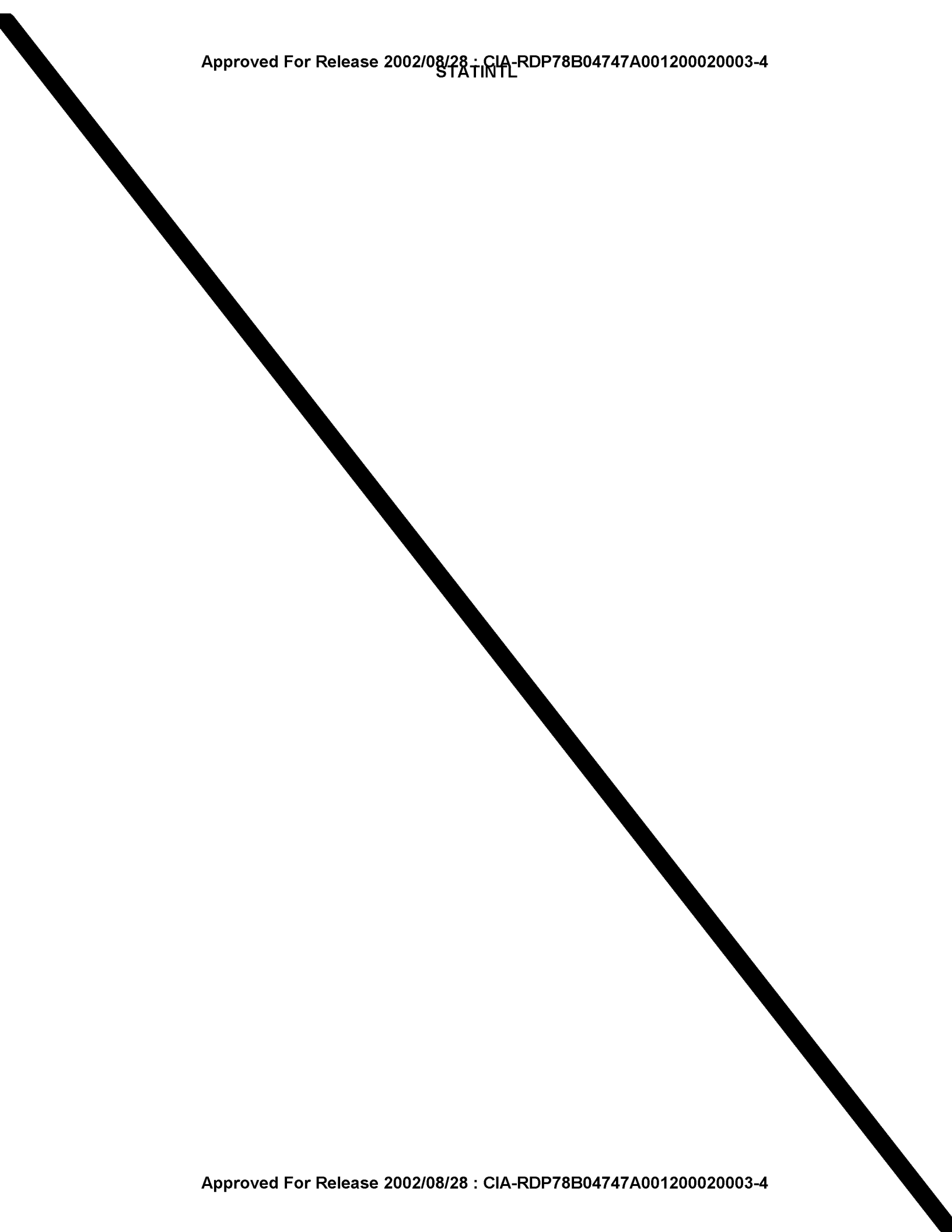
Very truly yours,

STATINTL

Director of Operations

WHM/clt

STATINTL



HEAT FILTER OUT - WATER CELL AND COLD MIRROR IN

LIGHT LEVEL - LAMP SIDE

	FOOT-CANDLES		
6X	60	60	49
1.04 density	51	78	76
145 amp	60	66	63
12X	40	46	44
1.04 density	48	61	57
145 amp	39	53	50
24X	27	28	29
1.04 density	30	32	31
150 amp	25	31	29
48X	16	17	16
1.04 density	16	20	25.5
100 amps	17	19	24

CONTRACT INSPECTION REPORT

CONTRACT NO. | TASK NO.

TO:

ENGINEERING SECTION/CB/PD/OL

DATE
1 Nov 64

INSPECTION REPORT NO. *(If final, so state)*
14

ESTIMATED COMPLETION DATE
30 Dec 64

NAME OF CONTRACTOR

25X1A

TYPE OF COMMODITY OR SERVICE

Variable Width Film Reader Prototype

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☒ NO

PER CENT OF WORK COMPLETED 95%

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☐ YES ☒ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☐ YES ☒ NO *(If yes, give details on reverse side.)*

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO
(If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ EXCELLENT
3. ☐ ABOVE AVERAGE
4. ☒ AVERAGE
5. ☐ BELOW AVERAGE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED

☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

☐ TERMINATE

☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

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PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR
18 Sept 64

SIGNATURE OF INSPECTOR

25X1A

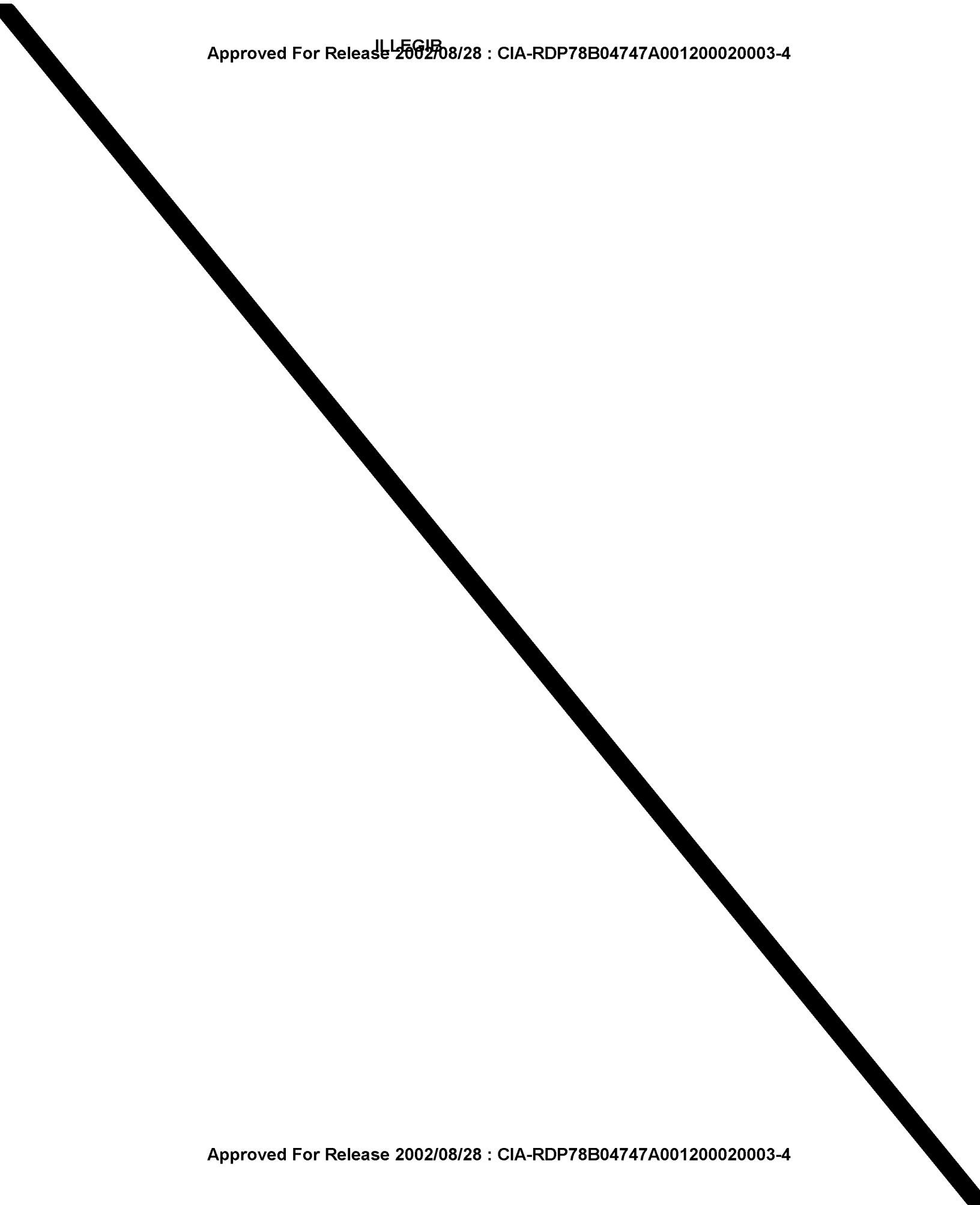
DIVISION
P&DS

INSP

25X1A

FORM 6-64

(12-36)



STATINTL [redacted]

3011

STATINTL [redacted]

29 October 1964

Attention: Contracting Officer

STATINTL Reference: Contract [redacted]

Gentlemen:

In reference to the above subject contract, the contractor has recently completed the estimates for cost at completion on the above contract and will require funds in addition to those presently committed under the contract.

STATINTL The contractor estimates that an additional [redacted] will be required to complete the performance within the scope of work included in this contract. Cost breakdown in substantiation of this amount is forwarded herewith as Enclosure 1.

In reviewing the cost at completion, it should be noted that there are several major factors contributing to this requirement for additional funds. The most outstanding of these is the cost of the liquid gate system.

STATINTL The basic proposal by [redacted] assumed transfer of extensive design information from a corporation which had done earlier work on a liquid gate. It had been assumed that the gate, which had been tested by the other corporation, would require only adaptive changes to the design in order to fit it to the system being made by [redacted]
STATINTL In actual fact, there were no detail drawings or assembly drawings available which could have been of any use. The gate demonstrated to [redacted] consisted simply of a
STATINTL fixed metal frame having two transparent sides. The demonstration of performance consisted only of suspending a piece of film, stationary and vertical, between the transparent sides and illuminating it by a high intensity lamp. There was no provision in the gate for moving the film, for driving it with a capstan, or for drying.
STATINTL Those problems [redacted] had to solve in the design of the equipment. To perform to the scope of work, [redacted] had to build a separate experimental gate. The problems associated with film motion, freon flow, temperature control and the capstan drive had to be solved before proceeding with the final machine design.

29 October 1964

Associated with the gate and related mechanical systems are well over 100 detailed drawings and sketches. Those were necessary in order to produce the parts for the experiment. For the final machine further engineering and drafting was required in order to adapt the experimental equipment, used to STATINTL demonstrate the first of the gates at [redacted] to a functioning piece of operational hardware. Merely the production of that many drawings can be seen as a major factor in the difference between the work [redacted] had anticipated performing STATINTL and that which we actually had to perform.

The second area on which a considerable amount of time was spent was the illumination optics. Originally, we felt that the requirement for producing high illumination levels on the screen would be relatively easy to attain with ILLEGIB a conventional optical design, and our proposal reflected this point of view. However, as the machine began to take shape mechanically, and since a design objective was to minimize floor space, we found that the optical design had become severely complicated. The original concept of the machine as proposed assumed a greater amount of space available within the machine structure for placement of the lamp. Final selection of a lamp and design of a lamp house resulted in a structure which was too large to incorporate within the body of the machine. That required shifting the lamp a considerable distance from its optimum position, resulting in the need for an optical relay system. The need for that type of design became apparent after the optical design had been under way for some time. This, in turn, reflected back into the mechanical design which also had been under way for some time. The result was costly insofar as anticipated time and labor hours were concerned because a significant amount of the mechanical design had to be altered, and due to changes in the optical design, this occurred at least twice. The final system provided an image of the arc at a point intermediate on the optical axis between the lamp and the film gate. In order to do this a number of lenses were required and their insertion into, and removal from the optical path was accomplished only with considerable complication of the electronics which controlled lens changes. Of course, the mechanism required to actuate the several turrets containing the change lenses was quite complicated and demanded space where heretofore there had been no need for space. This, in turn, forced re-location of other components of the system including a winding drum for hoses and cables

and thus a chain of changes was introduced which had a substantial effect on schedules and cost.

As a part of the freon cooling system, we originally designed a liquid-to-air heat exchanger since the required film temperature had to be kept about equal to room temperature. For the freon to cool it, the freon then had to be reduced below room temperature to guarantee that the heat would flow from the film to the freon. The only possible way of maintaining freon inlet temperature below ambient involved using a refrigerating system. Our initial design, therefore, employed a refrigeration system and our design work made room for this system within the body of the equipment. That absorbed considerable time and effort. Subsequently, it was determined that the refrigeration system could be placed externally in a separate utilities package. Because of crowding within the machine body resulting in the need for an optical relay system which occurred well into the design, the removal of the refrigerating system to an outside utilities package was most welcome. Nevertheless, the change did consume time and did therefore cost additional money. At a still later stage in the design, cooled water was made available at the installation site. Since that made possible the elimination of the refrigerating system and a simplification both as regards the number of packages which constituted the machine as well as in the fluid circuitry, that was the final concept adopted. It is apparent, therefore, that in achieving the design goals for the equipment, the pertinent ones were compactness, reliability and minimum complexity. To achieve these we were forced to go through what amounted to three separate approaches to a single problem.

In the area of the capstan, our original design employed a differential liquid pressure capstan. That capstan was designed and built to be incorporated in the experimental model prior to its adaptation for the final machine. Since measurement of distance along the length of the film was to be accomplished by counting the number of revolutions of that capstan [redacted] felt that capstan design was basic to machine performance. We also felt that any design technique that could be used should be employed to guarantee minimum likelihood of slippage between capstan and film. Therefore, since the use of a capstan having holes in it, and employing a reduced internal pressure to assist in

STATINTL

clamping the film tightly to its periphery has been a common practice in applications having similar requirements, such a design was tried first. Several variants on that design were tested, but none of these performed as satisfactorily as, or was as simple and inexpensive as a plain rubber covered design. The problem has now been solved by the use of a rubber covered capstan, but the trial models of differential pressure capstans consumed significant amounts of time and were not considered in our original cost estimate.

During fabrication of the equipment, it developed that the structure had inherent instabilities which led to image motion on the screen whenever the machine frame was lightly touched or whenever there was source of vibration nearby. Correction of this required the addition of heavy stiffening members to the frame and consumed substantial manufacturing time.

The illumination system for 48X magnification is designed to reduce the size of the light spot incident upon the film so as to illuminate only that area which is seen by the 48X lens. Thus, all of the light from the lamp is directed through that area and thence to the screen. The advantage of that lies in being able to maintain the highest practical illumination level on the screen as well as in maintaining good design practice. The disadvantage is a serious one: The concentrated light means also that the heat incident on the film also is concentrated. Removal of that heat therefore requires a considerably more sophisticated approach to cooling than at the bottom range of magnification. Although the optical system incorporates filtration of infra-red and ultra violet ends of the spectrum prior to the light reaching the film, some concern was felt over the efficiency of filters and several attempts have been made to optimize the absorption of heat prior to the film. These attempts have been over and above the criteria for the original optical design and thus cost has been increased beyond what was expected.

At 48X and 24X it is apparent from experiment that the image on the screen is distorted significantly due to the piece of glass in the film gate between the film and the projection lens. In order to display an accurate image on the screen, it has been necessary to design compensating lenses for both

29 October 1964

magnifications. The design of these lenses and the mounting design as well as the installation was not anticipated in the original bid.

During operation of the system after it had been assembled, and while it was being tested, the optical system was thoroughly adjusted to optimize it. The system logged many hours of operation with no casualties. However, for an undetermined reason, after a considerable operating time one lens in the lamp house cracked. It had not been mishandled. Cracking may have been caused by an unusual combination of operating conditions. Replacement of that lens is necessary before the machine will function satisfactorily. This was not accounted for in the original bid.

After observing operation of the machine during testing, it became apparent that several refinements were necessary. A light shield was required around the rear of the machine to reduce light spillage as much as possible. The release of freon vapor from the tank containing the supply reel when reels were changed is objectionable. Therefore, a ventilating system had to be added above the tank which could be brought into operation the moment the tank was opened. Manufacture and installation of these devices was not considered in the original bid.

Finally, during operation of the equipment in test it was found that residual material frequently left on the surface of the film from normal processing operations was dissolved by the freon. As the film was reeled back onto the supply spool preparatory to removing it from the machine, droplets of freon would adhere to the film and in drying, leave a detectable residue. To avoid this it was decided to incorporate air jets in the tank holding the supply reel to strip off any freon from the surface of the film. This became a requirement after design and fabrication of the entire system had been completed, and therefore constituted a reason for the expenditure of additional funds.

Indications of this requirement for additional funds were anticipated earlier. However, due to the complex nature of the equipment it has been only recently that we have been able to provide a firm estimate of the cost to complete. It
STATINTL is requested that the appropriate contractual amendment be issued under the subject contract to provide for an adjusted total cost of [redacted] and a
STATINTL fixed fee of [redacted] resulting in a total of [redacted]

STATINTL **The new delivery date at your facility is December 15, 1964.**

29 October 1964

STATINTL

In the event additional information is required, please contact

STATINTL

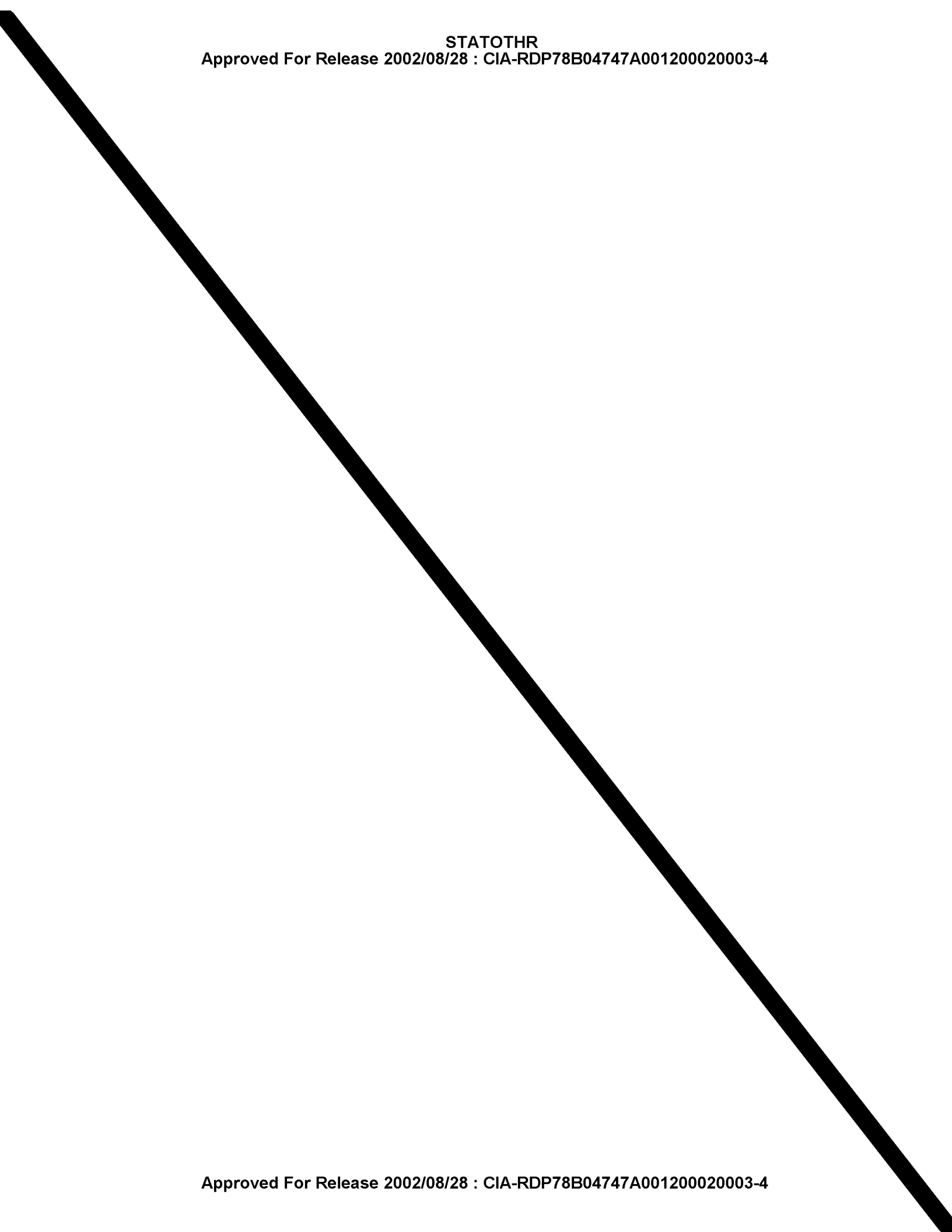
STATINTL

Very truly yours,

STATINTL

Business Manager

Enclosure 1 - Cost Breakdown



CONTRACT INSPECTION REPORT

CONTRACT NO. 25X1A

TO:

ENGINEERING SECTION/CB/PD/OL

DATE: 1 Oct 64

INSPECTION REPORT NO. *(If final, so state)*: 13

ESTIMATED COMPLETION DATE: October 1964

NAME OF CONTRACTOR: 25X1A

TYPE OF COMMODITY OR SERVICE

Variable Width Film Reader Prototype

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☒ NO

PER CENT OF WORK COMPLETED 95%

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☐ YES ☒ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☐ YES ☒ NO *(If yes, give details on reverse side.)*

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO
(If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ EXCELLENT
3. ☐ ABOVE AVERAGE
4. ☒ AVERAGE
5. ☐ BELOW AVERAGE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED

☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

☐ TERMINATE

☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR: 18 Sept. 64

SIGNATURE: 25X1A

DIVISION: P&DS 25X1A

INSPECTOR

An inspection visit was made on the 17th and 18th of September 1964 to make a preliminary evaluation. A number of conditions existed which require additional work before the machine is acceptable. All but two of the deficiences were minor and are basicly a matter of adjustment or component replacement. The two major areas of concern are Vibration and Film drying/venting. The vibration is due to poor structual rigidity and [redacted] is reinforcing the cabinet. At present, the freon is not being completely removed when the film is rewound at high speed, nor is their a toxic vent. [redacted] is investigating the best way to solve the freon dissipation problem from both the evaporation and venting aspects. 25X1A 25X1A

In addition they have already overrun the contract price and are preparing a report for the contracting office. It is estimated that the overrun will be approximately [redacted] 25X1A

25X1A

CONTRACT INSPECTION REPORT

TO: ENGINEERING SECTION/CB/PD/OL

DATE: 29 Aug 64

INSPECTION REPORT NO. *(If final, so state)*: 12

ESTIMATED COMPLETION DATE: Oct 64

25X1A

NAME OF CONTRACTOR:

TYPE OF COMMODITY OR SERVICE: Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☒ NO

PER CENT OF WORK COMPLETED: 95%

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☐ YES ☒ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☐ YES ☒ NO *(If yes, give details on reverse side.)*

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO
(If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ EXCELLENT
3. ☐ ABOVE AVERAGE
4. ☒ AVERAGE
5. ☐ BELOW AVERAGE
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7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED
☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE
☐ TERMINATE
☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

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DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR: 2 Sept 64

25X1A
25X1A

DIVISION: P&DS

GROUP 1
Excluded from automatic downgrading and declassification

STATINTL

August 7, 1964

Dear John:

STATINTL

In order to set forth the problems we have had with in an orderly manner, I asked STATINTL to make a chronological summary of the events which took place during the life of that Purchase Order. I am appending that to this letter in outline form. However, let me preface it with these comments.

I have made several visits to their plant. During the time elapsed between the first and last visit, there has been a very significant change in the number of people in their organization and in the apparent amount of business passing through the plant. Having mentioned this while talking to STATINTL who is one of the owners, he acknowledged that they are seeking to re-locate in less costly quarters, in a move which I can only interpret as retrenching. While he maintains firmly that they are not in financial trouble, nevertheless there are very strong indications that their volume of business has dropped a great deal.

We have no further objective evidence of their competence as a supplier other than what Dave has provided in his summary. We have included them on the list of bidders for several jobs and they have come in in every case the low bidder by a considerable margin. We cannot honestly claim that such low bidding is a symptom of incompetence. At its worst, all I can see is that they are hungry; possibly they bid low because of reduced costs. Certainly their administrative services have been reduced to practically nil. That latter argument is partially offset by their very large plant facility which, I would expect, coupled with their low direct labor input, would be reflected in a high overhead rate and therefore high costs.

In summary, we are going to shy away from using them as a vendor in the future by reason of poor performance. The difficulty they appeared to have with lens #4 this last time around indicates little or no improvement over the past. Our experience with other vendors has so far been good, with STATINTL the best and with STATINTL adequate. STATINTL certainly stands in my mind further down the scale than the other two.

Following is Dave's chronological summary:

STATINTL 2-6-64 Order placed with [redacted] P.O. 6679.

STATINTL 4-1-64 Promised delivery by [redacted]
STATINTL [redacted] expedited P.O. on the following dates: 4-6, 4-10, 4-13, 4-14, 4-20, 4-22, 4-23, 4-27, 4-28 and 4-30.

5-1-64 Received last of lenses for condensing system.

STATINTL W/E 5-4-64 [redacted] here - observed results of optical checkout. Gross discrepancies from predicted performance noted.

W/E 5-11-64 Measured all lens curvatures. Discovered gross errors.

STATINTL W/E 5-18-64 Telephone conversation with [redacted] They
W/E 5-25-64 checked their test plates for tolerances. They started re-doing element #10.

STATINTL 5-26-64 [redacted] to measure all lenses there. Checked test plates where available. They started procurement for blank for new element #4. Promised delivery by 7-3-64.

STATINTL Results of lens measurements at [redacted] plant,
STATINTL 5-26-64, by [redacted] personnel:

STATINTL 1. Element #11 had radius of 46.3". Print called for
STATINTL 50.0". No test plate was found, although [redacted] [redacted] claimed they used one. Tool was found to have radius of 46.3".

2. Element #3 was found to be .093" light on center
STATINTL thickness. [redacted] felt this was not critical, although the print called ± .005" tolerance on center thickness.

3. Element #4 was found to be .030" under [redacted] It
STATINTL was also off .070" from curvature at the edges of aspheric surface.

4. Element #10 aspheric surface not very close to specified coordinates. Curve was off about .055" at edge.

5. Element #7 aspheric surface had visible ring.

6. Remaining surfaces were within ± 1% radius as specified.

STATINTL W/E 6-10-64 [redacted] reported element #4 had been fractured after rough grinding was completed. They were procuring another blank.

W/E 6-24-64

STATINTL [redacted] problems of glass in general, procurement of blank for element #4 in particular.

7-31-64 Received new element #4.

Very truly yours,

STATINTL [redacted]

Director of Operations

WHM:jb

VWFR

STATINTL [redacted]

July 30, 1964

Dear John:

STATINTL We have been in constant touch with [redacted] They have now finished polishing the aspheric surface on element #4. Measurements made on it were passed on to us by phone and seem acceptable. It is now out for coating. However, we have reached a roadblock, because final centering of lineal turrets and the granite attachments cannot be done until we optically align the assembly. Further, the film tray assembly must also wait on this alignment before it can be put back on. In the meantime, the majority of electrical wiring has been completed, as has the plumbing. The reel is completed, and it appears it will function in a satisfactory manner.

STATINTL Your man [redacted] was here last week, and we went over the theory of operation as well as all circuitry involved in our Variable Width Film Reader. We covered all aspects including mechanical ones, although the stress was primarily on the electrical side. Unfortunately, the delay on the lens meant the machine was not operational, but I feel Ed's trip was still very worthwhile.

We still need enough film to check out the machine. Perhaps 1000' of 70 mm and 400' of 9-1/2" should be sufficient. It would be helpful if the film had images upon which we could perform test measurements.

Very truly yours,

STATINTL [redacted]

Director of Operations

WHM:jb

cc: Contracting Officer

CONTRACT INSPECTION REPORT

CONTRACT NO. [redacted] PAGE NO.

25X1A

TO:

ENGINEERING SECTION/CB/PD/OL

DATE: 28 July 1964

INSPECTION REPORT NO. *(If final, so state)*: 12

ESTIMATED COMPLETION DATE: August 1964

NAME OF CONTRACTOR [redacted]

25X1A

TYPE OF COMMODITY OR SERVICE

Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☒ NO

PER CENT OF WORK COMPLETED 90%

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☐ YES ☒ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☐ YES ☒ NO *(If yes, give details on reverse side.)*

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO *(If yes, indicate items, quantity, and cost on reverse side.)*

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ EXCELLENT
3. ☐ ABOVE AVERAGE
4. ☒ AVERAGE
5. ☐ BELOW AVERAGE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED

☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

☐ TERMINATE

☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR

SIGNATURE OF INSPECTOR [redacted]

25X1A

DIVISION: P&DS

INSPECT [redacted]

SIGNATURE [redacted]

25X1A

FORM 6-64 1897 USE PREVIOUS EDITION

(12-56)

Next 2 Page(s) In Document Exempt

CONTRACT INSPECTION REPORT

25X1A

TO:

ENGINEERING SECTION/CB/PD/OL

DATE: 29 June 1964

INSPECTION REPORT NO. *(If final, so state)*: 11

ESTIMATED COMPLETION DATE: August 1964

NAME OF CONTRACTOR

25X1A

TYPE OF COMMODITY OR SERVICE

Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☒ NO

PER CENT OF WORK COMPLETED 90

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☐ YES ☒ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☐ YES ☒ NO *(If yes, give details on reverse side.)*

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO *(If yes, indicate items, quantity, and cost on reverse side.)*

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ SUPERIOR
3. ☐ EXCELLENT
4. ☒ HIGHLY SATISFACTORY
5. ☐ ACCEPTABLE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED

☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

☐ TERMINATE

☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR: 24 June 1964

SIGNATURE OF INSPECTOR

DIVISION: PD/DS

25X1A
25X1A

25X1A

Completion of work and delivery is subject to receipt of the condenser elements from [redacted] vendor. Work has been slow during the last month since the fabrication is dependent upon having the condenser elements installed in place.

STATINTL [redacted]

June 26, 1964

Dear John:

As you know, the optical system did not perform as expected when first set up. We measured the curvatures of all lenses, including the aspherics, and found the following:

One spherical surface was incorrect. Element #11 had a radius of 46.3 inches instead of 50.0 inches. This has been reground and polished and is ready for us to inspect.

Element #3 was found to have a center thickness 0.093" under print. STATINTL [redacted] felt this was not a critical point, so we will use this lens as is.

Element #4 is being redone because it was some 30 thousandths under in center thickness, but most important, the aspheric was off 0.070" at the edge. It will be complete, ready for inspection, by 3 July.

Element #10 has been redone also. The aspheric curve dropped off 0.055" at the edge. STATINTL [redacted] has obtained the new blank and has finished, ready for us to inspect.

Element #7 aspheric surface followed table, but there was a ring visible in the center of the lens. This has been polished out and is ready for inspection.

The remaining surfaces were all found to be within the $\pm$ 1% radius as specified.

Element #1 has developed a slight crack along the edge because of improper tolerance on the mounting ring. Being quartz, expert opinion seems to think it will not get any worse.

Element #5 has a slight chip along the edge. Again, being quartz, and because the image is cone shaped, the element is usable as is. This was caused by frequent handling when trying to determine what was wrong with the system.

STATINTL [redacted] has rechecked the design, and he feels confident that when
STATINTL the lenses are as specified, the system will perform as designed.

STATINTL The [redacted] encoders were rechecked with the [redacted] counters and found
STATINTL not to be working well. Further checking showed the [redacted] input circuitry
STATINTL design to be at fault. These boards were sent to [redacted] for reworking, and
we now have them back. The system is functioning satisfactorily.

All the air bearings are functioning. The stage glides with 55 psi air;operation will be with 80-90 psi.

Plumbing is progressing well. The freon pump is in. Waiting for completion of reel.

Electronics are being mounted on console and servo bins (on right hand door). Cabling will commence as soon as parts are all mounted.

The PERT/Time analysis reflects the extra time we estimate needed to get back the new lenses and accomplish the remaining tasks.

Very truly yours,

STATINTL [redacted]

Director of Operations

WHM:jb

Next 2 Page(s) In Document Exempt

CONTRACT INSPECTION REPORT

25X1A

TO:

ENGINEERING SECTION/CB/PD/OL

27 May 1964

INSPECTION REPORT NO. *(If final, so state)*

10

ESTIMATED COMPLETION DATE

Aug. 1964

NAME OF CONTRACTOR

25X1A

TYPE OF COMMODITY OR SERVICE

Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☒ NO

PER CENT OF WORK COMPLETED 85%

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☐ YES ☒ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☒ YES ☐ NO *(If yes, give details on reverse side.)*

Monthly Report

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO
(If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ SUPERIOR
3. ☐ EXCELLENT
4. ☒ HIGHLY SATISFACTORY
5. ☐ ACCEPTABLE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTO

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED

☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

☐ TERMINATE

☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DO
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR

27 May 1964

SIGNATURE OF INSPECTOR

DIVISION

P&DS

SIGNATURE OF APPROVER

25X1A

GROUP 1
Excluded from automatic downgrading and declassification

25X1A

A minimum of one month's delay in delivery is anticipated due to rejection by [redacted] of 5 of the condenser system optical elements from their vendor.

Variable Width Film Reader

STATINTL

6 May 1964

Dear John:

Last Friday, 1 May 1964, we received the last lens for our condensing system. We are now in the process of preliminary alignment of the optical systems.

Light has been passed through portions of the system, and we are now correcting what appear to be minor mechanical interferences in the light path. Actual optical adjustment and assessment of the system optical quality will come after that.

As mentioned on your last trip, control placement will be as you saw the front panel. On the left hand side of the screen will be the end of film warning light, and below it the lamp current ammeter. On the right of the screen will be two lights; the top one warns of low freon level in the tray, and the bottom of abnormal conditions such as no air or overheating lamp-house. Of course, these conditions will automatically turn off the lamp to prevent damage.

AC power distribution and controls, logic and interlocking chassis will be on the left hand door, while the servo bins and power supplies will be on the right hand door.

In order to get your machine to you as quickly as possible, we are planning to fly it back East.

If problems arise, we will be in touch with you as necessary. We look forward to your next visit.

Very truly yours,

STATINTL

Director of Operations

WHM:DAW:jb

cc: Contracting Officer

Next 2 Page(s) In Document Exempt

CONTRACT INSPECTION REPORT

25X1A

TO:

ENGINEERING SECTION/CB/PD/OL

DATE: 27 April 1964

INSPECTION REPORT NO. *(If final, so state)*: 9

ESTIMATED COMPLETION DATE: July 1964

NAME OF CONTRACTOR

25X1A

TYPE OF COMMODITY OR SERVICE

Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☒ NO

PER CENT OF WORK COMPLETED 75%

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☐ YES ☒ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☒ YES ☐ NO *(If yes, give details on reverse side.)*

Monthly Report

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO *(If yes, indicate items, quantity, and cost on reverse side.)*

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ SUPERIOR
3. ☐ EXCELLENT
4. ☒ HIGHLY SATISFACTORY
5. ☐ ACCEPTABLE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED

☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

☐ TERMINATE

☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR: 17 and 20 April 1964

SIGNATURE OF INSPECTOR

25X1A

DIVISION: P&DS

INS

SIGNATURE OF APPROVER

Progress thus far on the instrument appears highly satisfactory. Delivery has been delayed to June 14 due to failure of vendors to deliver the condenser elements on time.

25X1A [redacted] has indicated that an overrun of approximately 10% is anticipated due to the development of the liquid gate and condenser design. At the time of proposal, it was assumed that sufficient information on the liquid gate and light source was available from 25X1A [redacted] to aid in the gate design. However, after working with it was determined that insufficient information was not available on either the dynamic liquid gate problems or light source. This resulted in more breadboard and engineering work than anticipated.

STATINTL

STATINTL

8 April 1964

Dear John:

The machine is rapidly taking shape. We have checked the motions of the three lens turrets, as well as run the lamp housing with water as coolant.

Confirming telephone conversations, we will supply the Reader with the Lamp Power Supply in its own package. Everything else will be on the main frame. During installation, the freon pump will be dropped to the floor, to isolate any possible vibrations. It will still be within the machine, however.

Cooling of the lamp, as well as of the freon, will be done with water you will supply. No problems, such as algae, are anticipated, as the water does not flow through the light path.

Outlook looks good for delivery date of May 15, 1964. We look forward to your next visit.

Very truly yours,

STATINTL

Director of Operations

WHM:jb

cc: Contracting Officer

Next 2 Page(s) In Document Exempt

CONTRACT INSPECTION REPORT

CONTRACT NO. 25X1A

TO:

ENGINEERING SECTION/CB/PD/OL

DATE 1 March 1964

INSPECTION REPORT NO. *(If final, so state)*

ESTIMATED COMPLETION DATE March 1964

NAME OF CONTRACTOR 25X1A

TYPE OF COMMODITY OR SERVICE

Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☒ NO

PER CENT OF WORK COMPLETED _____

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☒ YES ☐ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☒ YES ☐ NO *(If yes, give details on reverse side.)*

Monthly Report

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☒ YES ☐ NO *(If yes, indicate items, quantity, and cost on reverse side.)*

Readout electronics shipped direct from 25X1A

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ SUPERIOR
3. ☐ EXCELLENT
4. ☒ HIGHLY SATISFACTORY
5. ☐ ACCEPTABLE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☐ CONTINUE AS PROGRAMMED

☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

☐ TERMINATE

☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR
6 March 1964

25X1A

DIVISION
P&DS

SIGNATURE OF APPROVER

SECRET

17 March 1964

MEMORANDUM FOR THE RECORD

25X1A SUBJECT: Trip Report to

25X1A

25X1A 1. On the 6th of March, the undersigned accompanied by visited to review the progress on the Variable Width Film Reader. In addition, we sat in on a presentation 25X1A given to SAC personnel on a new film viewer which s developing as an in-house project.

25X1A 2. Due to the recent discrepancy in security certifications, the security problems were discussed with It is the opinion 25X1A of both parties that now has sufficient security clearances either approved or in processing.

25X1A 3. optical consultant, was on board for most of the day and I had the opportunity to discuss the VWFR optical system which he designed and also briefly discuss the results obtained on the DSMP for which he also did much of the optical design. Some of the more important considerations discussed were:

a. Advantages of the Old Delft versus Polocoat screens.

25X1A b. requested data on screen intensities achieved on the DSMP to aid him in his analysis of the design. had some 25X1A data available and I will take additional foot candle readings when time permits.

25X1A c. stated that full lamp intensity must not reach the projection lenses on the VWFR for any extended period of time (open gate, full lamp intensity). Normal precautions are being taken to guard against this.

d. The only filter planned for the optical system is the 8"x8" Diachroic mirror. This will have a 3μ or 4μ cutoff.

e. Corrector elements have been designed and ordered for the 24X and 48X lenses. The function of these elements is basicly that of a field flatner and they will be attached to the front of the lens barrel.

25X1A f. The data on the eliptical reflector had 25X1A not been given to so I asked him to fill out a Form 1841 for clearance so that we may discuss this data directly and use his services again if required.

SECRET

25X1A 4. The readout electronic counter problems indicated in the last
25X1A report were discussed with [redacted] Apparently there are no serious problems involved and it is purely a matter of proper communications. They have successfully operated the counters and feel it is a matter of properly connecting them. *This has since been clarified. The problem was due to a shipping error.*

25X1A 5. The control panel was reviewed by [redacted] and several small changes were made in the physical location of some of the controls. I requested that the transport mode switch be deleted from the panel and the functions interlocked directly with the controls. I also requested that they not delete the speed range selection controlled by magnification selection as they indicated in their last report.

25X1A 6. Non-[redacted] personnel present at the Film Viewer presentation were
25X1A [redacted] The basic specifications for the viewer are:

a. $9\frac{1}{2}$"x$9\frac{1}{2}$" maximum aperture at 3X, with 6X, 12X and 30X projection on a 30"x30" screen.

b. Overall dimension of 87" long, $34\frac{1}{2}$" wide, 68" high with an estimated weight of 2400 pounds.

c. Light source - a 1500 watt tungsten lamp with screen brightness spread of ± 10%. No figure was given as to the nominal brightness achieved.

d. The projection optics and transport are to be a removable subassembly for ease of maintenance.

7. Delivery of the 1st unit would be four months from receipt of
25X1A order with additional units of approximately two a week thereafter. Much
of this production schedule is based on producing most of the units at
25X1A the [redacted] with the engineering done at [redacted] A breadboard printed circuit motor transport was displayed for those present. The smoothness and handling qualities appeared far superior to anything we now have in-house. The design of the viewer is an in-house effort utilizing the experience and knowledge gained on the VWFR, MPS and similar measuring projectors with critical transport and optical problems.

25X1A [redacted]
Development Branch, P&DS

[redacted]

VNFR

2 March 1964

Attention: Contracting Officer

STATINTL Subject: Expenditure Report - Contract [redacted]

Gentlemen:

Pursuant to the terms of the above contract, the expenditures as of 23 February 1964 are set forth in the attached report.

Very truly yours,

STATINTL [redacted]

STATINTL [redacted]

Business Manager

BCJ:lhf

Enclosure

STATOTHR

Approved For Release 2002/08/28 : CIA-RDP78B04747A001200020003-4

CONTRACT INSPECTION REPORT

CONTRACT NO. | TASK NO.

25X1A

TO:

ENGINEERING SECTION/CB/PD/OL

DATE: 27 February 1964

INSPECTION REPORT NO. *(If final, so state)*: 7

ESTIMATED COMPLETION DATE: March 1964

NAME OF CONTRACTOR

25X1A

TYPE OF COMMODITY OR SERVICE

Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE [X] YES [ ] NO

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS [X] YES [ ] NO

THE CONTRACTOR WILL COMPLETE TASK WITHIN ALLOTTED TIME [X] YES [ ] NO

ALL PHASES OF THE TECHNICAL PROGRESS ARE SATISFACTORY [X] YES [ ] NO

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? [ ] YES [X] NO *(If yes, give details on reverse side.)*

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? [ ] YES [X] NO *(If yes, indicate items, quantity, and cost on reverse side.)*

OVERALL PERFORMANCE OF CONTRACTOR

1. [ ] OUTSTANDING
2. [ ] SUPERIOR
3. [ ] EXCELLENT
4. [X] HIGHLY SATISFACTORY
5. [ ] ACCEPTABLE
6. [ ] BARELY ADEQUATE
7. [ ] UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

[X] CONTINUE AS PROGRAMMED

[ ] WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

[ ] TERMINATE

[ ] OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

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PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR: 20 February 1964

SIGNATURE OF INSPECTOR

IN

DIVISION: P&DS

25X1A

SIGNATURE OF APPROVER

 VWFR

STATINTL

February 26, 1964

Dear John:

The experimental phase of this job is finished, and hardware is taking shape.

Results of the experiment indicated the following changes, which are being incorporated in the prototype machine:

The pressure differential capstan scheme has been discarded. It was found that no capstan (pressure differential or plain roller, or pressure roller) could drive film at the required slew rate of 250 ft/min (50 in/sec). The freon, at high capstan speeds, acted as a lubricant so that the film would slip. But at measuring speeds (1"/sec.) even a simple capstan would drive the film without slipping.

Accordingly, a simple capstan is to drive the film at measuring speeds, and for the scan mode of operation. When slewing, the capstan will free wheel and the reel motors will provide driving power.

STATINTL To further insure accuracy, a metering roller, similar to the capstan, will be used to drive the [redacted] encoder for actual measurement. Since less force is required to drive the encoder from the film than to drive the film from the capstan, accuracy (slippage) will be independent of film driving.

Speed reduction between drive motors and capstan will be about 50 to 1, giving much greater control and smoothness at low speeds. Because of the great speed range available, programmed speed ranges with magnification changes do not seem necessary, and will be eliminated in the interest of simplicity.

Condensing lenses have been ordered with delivery in early April promised. The quartz cold mirror reflector for the Lamp House will also be delivered in early to middle April. Our delivery depends upon these suppliers.

STATINTL [redacted] has just completed design of corrector lens systems for 24 and 48 power. We will have to get these ordered, but these units can be fitted during testing if necessary.

Because the focus control may be needed for fine adjustment during measuring at higher power, it should be on the left of the console. The operator's right hand would be manipulating the joystick, leaving his left free for focussing. A sketch showing our present thinking on control placement is enclosed. Note that only operating controls are accessible. Start and stop switches will be mounted on the side of the machine.

STATINTL
STATINTL A slight problem was found in the [ ] counters. [ ] voltages were
STATINTL not as required. This seems to be a power supply problem which we can
STATINTL fix here with [ ] guidance. We are in contact with [ ] and will make
STATINTL the simple changes they suggested.

STATINTL Because [ ] counter plugs for [ ] power were wired differently, one
STATINTL electronics unit was damaged. Also, the logics seemed to give erroneous signals. Further, the bearings on the model 35 were binding. For these
STATINTL reasons the [ ] Electronics and Encoders were returned to the factory for repair and reinspection.

During the experiment, noise from the servo system got into the counting system, giving erroneous results. This points out a need for proper shielding in the finished machine, which will be accomplished.

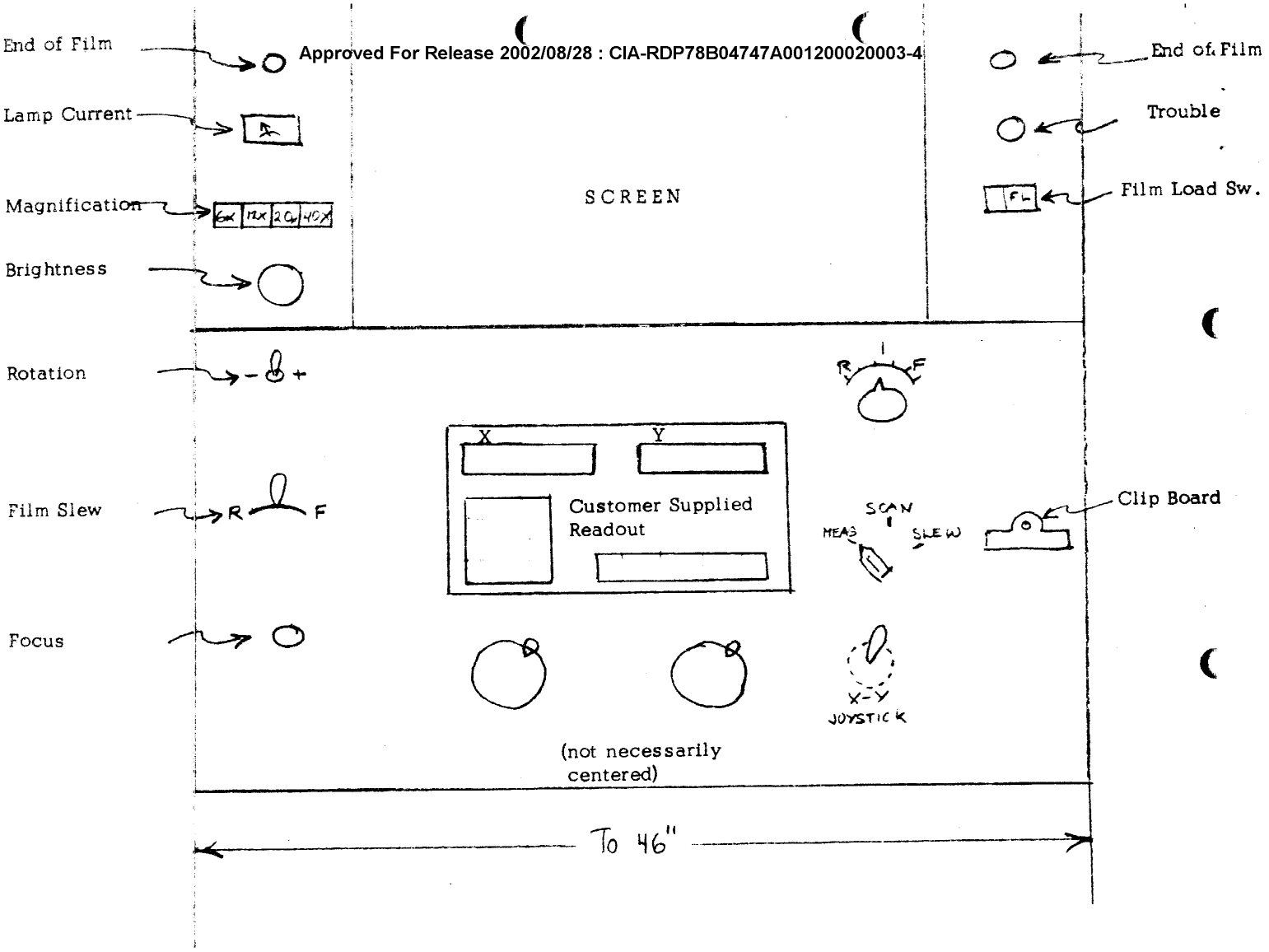
Very truly yours,

STATINTL [ ]

Director of Operations

WHM:DAW:jb

cc: Contracting Officer



CONSOLE LAYOUT

Next 2 Page(s) In Document Exempt

[redacted]

Variable Film
Leader

STATINTL

31 January 1964

Attention: Contracting Officer

STATINTL

Subject: Expenditure Report - Contract [redacted]

Gentlemen:

Pursuant to the terms of the above contract, the expenditures as of 24 January 1964 are set forth in the attached report.

STATINTL

Very truly yours,

[redacted]

STATINTL

[redacted]
Business Manager

BCJ:lhf

Enclosure

Air Mail

STATOTHR

Approved For Release 2002/08/28 : CIA-RDP78B04747A001200020003-4

SECRET
(When Filled In)

CONTRACT INSPECTION REPORT

25X1A

TO:

ENGINEERING SECTION/CB/PD/OL

29 January 1964

INSPECTION REPORT NO. *(If final, so state)*
5

ESTIMATED COMPLETION DATE
March 1964

NAME OF CONTRACTOR

25X1A

TYPE OF COMMODITY OR SERVICE

Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE ☐ YES ☐ NO	THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☒ YES ☐ NO
THE CONTRACTOR WILL COMPLETE TASK WITHIN ALLOTTED TIME ☐ YES ☐ NO	ALL PHASES OF THE TECHNICAL PROGRESS ARE SATISFACTORY ☒ YES ☐ NO

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☐ YES ☐ NO *(If yes, give details on reverse side.)*

Monthly Report, dated 17 January 1964

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☐ NO
(If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ SUPERIOR
3. ☐ EXCELLENT
4. ☐ HIGHLY SATISFACTORY
5. ☐ ACCEPTABLE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED
☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE
☐ TERMINATE
☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR
17 January 1964

25X1A

S

DIVISION
PD/DC

25X1A

SIGNATURE OF APPROVER

FORM 10-63 1897

SECRET
(When Filled In)

GROUP 1
Excluded from automatic downgrading and declassification

(12-36)

File Variable Film Width Reader

[redacted]

STATINTL

January 17, 1964

Dear John:

During January we concluded that the vacuum capstan was inadequate as designed. Although the counters have not yet arrived, our tests showed that there was slippage between film and capstan.

Part of the trouble was traced to deficiencies in the capstan, namely leakage of freon from the high pressure side. Other causes of trouble seem to be excessive friction on the low pressure side and through the film gate itself. This whole problem is being looked at, and a new approach to the capstan will be tried.

The new approach will use a solid capstan (of hard rubber), and the film will be held to the capstan by freon under pressure from a fitted shoe. Advantages include more positive drive (higher pressure available) and considerable savings in manufacturing costs.

Designs for subsystems are well along. The new film tray castings are ready for machining. Drives for X and Y are being detailed. Projection turret design is in progress. The mockup is being updated. The rotating joystick assembly is being designed.

STATINTL

Most critical item at this time is the condensing system design, which is not yet complete. [redacted] discovered an error, and had to back up considerably. W[redacted] several bids on the former design, and best possible delivery was eight weeks, with most vendors quoting twelve weeks ARO. If we get final information immediately, we will still be about a month behind schedule.

STATINTL We are contacting [redacted] at your suggestion in hopes of managing faster delivery on the lenses. Final design is being held up by this delay in the condensing system. Condensing lens turrets, mount for doughnut, lamp housing design, frame, etc., are all dependent upon lens diameters and locations, etc.

A summary of the image inversion problem and our proposed solution to it will be forwarded under separate cover.

Preliminary console layout of operating controls is shown on Dwg. ED588 enclosed. Please comment and return one copy, marked up if required.

Very truly yours,

STATINTL [redacted]

Director of Operations

WHM:jb

Enclosures

Next 2 Page(s) In Document Exempt

File

STATINTL

30 December 1963

Attention: Contracting Officer

STATINTL Subject: Expenditure Report - Contract

Gentlemen:

Pursuant to the terms of the above contract, the expenditures as of December 29, 1963 are set forth in the attached report.

Very truly yours,

STATINTL

STATINTL

Business Manager

BCJ:lhf

enclosure

STATOTHR

Next 1 Page(s) In Document Exempt

Approved For Release 2002/08/28 : CIA-RDP78B04747A001200020003-4

SECRET
(When Filled In)

25X1A

CONTRACT INSPECTION REPORT

CONTRACT NO. | TASK NO.

TO:

ENGINEERING SECTION/CB/PD/OL

DATE: 18 December 1963

INSPECTION REPORT NO. *(If final, so state)*: 5

ESTIMATED COMPLETION DATE: March 1964

NAME OF CONTRACTOR

25X1A

TYPE: Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE ☒ YES ☐ NO	THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☒ YES ☐ NO
THE CONTRACTOR WILL COMPLETE TASK WITHIN ALLOTTED TIME ☒ YES ☐ NO	ALL PHASES OF THE TECHNICAL PROGRESS ARE SATISFACTORY ☒ YES ☐ NO

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☐ YES ☐ NO *(If yes, give details on reverse side.)*

(Monthly Report)

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☐ NO
(If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING
2. ☐ SUPERIOR
3. ☒ EXCELLENT
4. ☐ HIGHLY SATISFACTORY
5. ☐ ACCEPTABLE
6. ☐ BARELY ADEQUATE
7. ☐ UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

☒ CONTINUE AS PROGRAMMED

☐ WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

☐ TERMINATE

☐ OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT, CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR: 21 November 1963

SIGNATURE OF INSPECTOR

25X1A

DIVISION: P&DS

INSPECTOR

SIGNATURE OF REVIEWER

25X1A

FORM 11-62 1697

SECRET

GROUP 1
Excluded from automatic downgrading and declassification

(12-36)

STATINTL

[redacted]

STATINTL

December 2, 1963

Dear John:

Our progress this month has been considerable. We have designed the granite doughnut and film tray to rotate on a large ball bearing. The cables to the film tray, as well as the air and freon hoses will travel up through the hole in the granite, just outside the light path. This will allow the table to rotate without undue stretching or reeling of hoses and cables.

We have decided to use independent fluid systems for the gate and for lamp cooling. In this way a much smaller refrigeration system can be used for the film gate coolant. Since lamp temperatures need not be as low as the film, a direct fluid-to-air heat transfer device will be used.

It should be noted that roughly 25,000 BTU/hr will be dumped from the reader. We will provide a connection such that the warm air can be discharged either directly into the room or ducted to an exhaust line.

We plan to use a double action air driven pump for the film gate freon system. A pump of this type has been run to prove feasibility. Bellofram rolling diaphrams will be used to provide long life, and a completely sealed freon system. Noise, vibration and heat have been markedly reduced.

STATINTL We have received from [redacted] the second rough condenser system diagrams. They are not what we had hoped for, as the lens elements which must be changed are still up inside the doughnut bearing. This means a more complicated condenser changing mechanism, but it is still reasonable. Final information won't be in hand for two weeks, so we cannot order lenses until then. This puts a premium on rapid delivery of lenses.

Since we can get most of the freon off the film with rollers, perhaps the rewinding will have to be done with the low pressure lid open, evaporating the remaining coolant from the film. In this case there would be some loss of freon to the air, but the film would be dry as removed from the reader.

Our real hope is that the rollers will remove enough freon to leave the film in a satisfactory condition when used in the closed system. First tests look promising, and we should know by next week if this is to be the final solution.

Finally, we come to the projection screen. Polacoat will coat a glass plate which we supply with reticle engraved or silk screened. Alternately a reticle could be scribed or drawn with pencil on a polacoat screen.

STATINTL [redacted] is willing to supply a 30" x 30" screen. They would stretch a horizontal and a vertical wire, .0025" each, from top to bottom and side to side, and imbed them in the plastic material between the two glass sheets. Since they have never made a screen larger than 22" x 22", they would build this first screen for STATINTL [redacted] on a 30-day trial, money back if not satisfied. We plan to order one screen from each supplier.

Would you please indicate the exact configuration desired for your reticle. We'll need this to order the screens by 16 December.

Very truly yours,

STATINTL [redacted]

Director of Operations

WHM:jb

cc: Contracting Officer

STATINTL

3 December 1963

STATINTL

Attention: Contracting Officer

Subject: Expenditure Report - Contract

Gentlemen:

Pursuant to the terms of the above contract, the expenditures as of November 24, 1963 are set forth in the attached report.

Very truly yours,

STATINTL

BCJ:lhf

Business Manager

enclosure

STAT TO THE

Next 2 Page(s) In Document Exempt

Approved For Release 2002/08/28 : CIA-RDP78B04747A001200020003-4

CONTRACT INSPECTION REPORT

CONTRACT NO. | TASK NO.

25X1A

TO: ENGINEERING SECTION/CB/PD/OL

DATE: 26 November 1963

INSPECTION REPORT NO. *(If final, so state)*: 4

ESTIMATED COMPLETION DATE: March 1964

NAME OF CONTRACTOR

25X1A

TYPE OF

Variable Width Film Reader

THE CONTRACTOR IS ON SCHEDULE [X] YES [ ] NO

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS [X] YES [ ] NO

THE CONTRACTOR WILL COMPLETE TASK WITHIN ALLOTTED TIME [X] YES [ ] NO

ALL PHASES OF THE TECHNICAL PROGRESS ARE SATISFACTORY [X] YES [ ] NO

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? [X] YES [ ] NO *(If yes, give details on reverse side.)*

Monthly Report (9 August 1963)

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? [ ] YES [X] NO
(If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. [ ] OUTSTANDING
2. [ ] SUPERIOR
3. [X] EXCELLENT
4. [ ] HIGHLY SATISFACTORY
5. [ ] ACCEPTABLE
6. [ ] BARELY ADEQUATE
7. [ ] UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

[X] CONTINUE AS PROGRAMMED
[ ] WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE
[ ] TERMINATE
[ ] OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR: 21 November 1963

25X1A SIGNATURE OF INSPECT

DIVISION: P&DS

25X1A

25X1A

29 October 1963

Attention: Contracting Officer

Subject: Expenditure Report - Contract [redacted] STATINTL

Gentlemen:

Pursuant to the terms of the above contract, the expenditures as of September 30, 1963 are set forth on the attached report.

Very truly yours,

STATINTL

[redacted]

[redacted] STATINTL

Business Manager

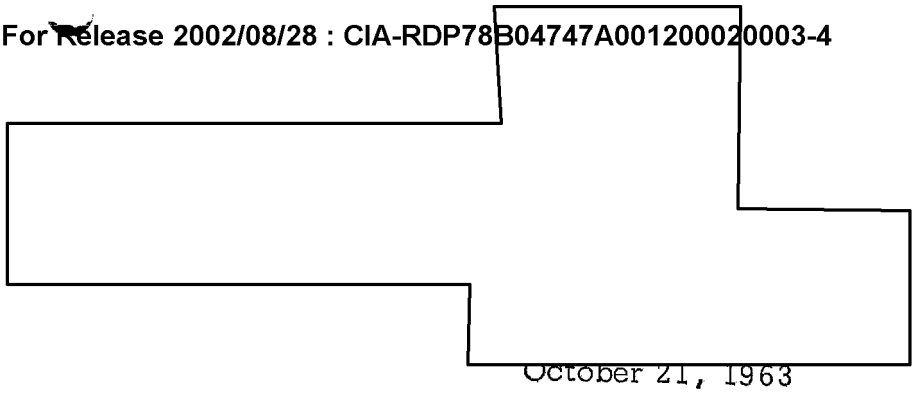
BCJ:lhf

Enclosure

STATOTHR

Approved For Release 2002/08/28 : CIA-RDP78B04747A001200020003-4

STATINTL



October 21, 1963

Dear John:

Here is the PERT/Time Analysis for this month.

During the month we have decided to use the [redacted] lamp, as outlined in a letter to you. We have also decided against prisms for rotation, and will use the brute force approach of actually turning the film tray. 25X1

STATINTL We have been working closely with [redacted] and he is to complete his work by 1 November 1963. Also, it appears feasible to provide the viewing screen with built-in reticle. The PERT chart is revised to show these changes.

The film tray experiment is progressing. We are working on elimination of flutter of the film in the gate. We are also trying to determine the factors controlling the plane of the film in the gate.

To eliminate the noise and vibration of the Freon pump, we are investigating using air pressure to pump the Freon through the system. Using a [redacted] diaphram, the approach seems quite feasible, since you are providing air for bearings already. 25X1

We are now in the process of tying down the rotary table details. The possible approaches include hoses, or a slip ring arrangement for bringing the Freon in and out, and also for the air requirements. Because of lead time, this path is now critical.

The air knife looks like it might become a tremendous problem. We are building an experimental knife to strip Freon from the film in a closed circuit push, pull arrangement. Getting Freon liquid out of the air is a large order. Open systems would of course loose too much Freon.

Would it be acceptable to transfer the wet, rewound film to another device to be dried? Such a drier could be shared by a number of readers.

STAT [redacted] is providing all power needed for the [redacted] and for the interface electronics between encoders and counters. 25X1

Very truly yours,

STATINTL [redacted]

Director of Operations

WHM:jb

cc: Contracting Officer

STAT OTHR

Next 1 Page(s) In Document Exempt

25X1A

CONTRACT INSPECTION REPORT

CONTRACT NO. [redacted]

TASK NO.

TO:

ENGINEERING SECTION/CB/PD/OL

DATE
14 October 1963

INSPECTION REPORT NO. *(If final, so state)*
3

ESTIMATED COMPLETION DATE
1 June 1964

25X1A

NAME OF CONTRACTOR
[redacted]

TYPE OF COMMODITY OR SERVICE

Film Reader

THE CONTRACTOR IS ON SCHEDULE [X] YES [ ] NO

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS [X] YES [ ] NO

THE CONTRACTOR WILL COMPLETE TASK WITHIN ALLOTTED TIME [X] YES [ ] NO

ALL PHASES OF THE TECHNICAL PROGRESS ARE SATISFACTORY [X] YES [ ] NO

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? [X] YES [ ] NO *(If yes, give details on reverse side.)*

Monthly Status Report

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? [ ] YES [X] NO
(If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. [ ] OUTSTANDING
2. [ ] SUPERIOR
3. [ ] EXCELLENT
4. [X] HIGHLY SATISFACTORY
5. [ ] ACCEPTABLE
6. [ ] BARELY ADEQUATE
7. [ ] UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

[X] CONTINUE AS PROGRAMMED

[ ] WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

[ ] TERMINATE

[ ] OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT, CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR
30 September 1963

SIGNATURE OF INSPECTOR
[redacted]

DIVISION
[redacted]

25X1A

SIGNAT [redacted]

25X1A

FORM 11-62 1897

(12-36)

GROUP 1
Excluded from automatic downgrading and declassification

File

STATINTL

20 September 1963

Dear John:

Here is the Pert/Time Analysis for this month.

The Experimental Tray is progressing very nicely, and we should be ready to run on 23 September. This will answer questions such as: will the film stay flat; what pressure range is suitable; what the flow rate through the gate is vs. pressure and platen spacing; what happens in the gate when slewing; what the performance is of the film drive system; and pave the way for final design.

Next Monday, September 23, we will have the answer to two basic questions: which lamp we will use and whether we can use Pechan prisms for rotation of the image to avoid rotating film gate. I am therefore not changing the PERT chart for now, but expect the next report may contain a revised Chart based on the above information.

STATINTL

STATINTL has been retained for the optical design of the instrument. STATINTL will complete the design by 1 November 1963, with preliminary information starting 23 September 1963. We are holding up design of the rotating table for a week. If the resolution using a rotating prism is satisfactory, we would probably go that route with the following mechanical advantages accruing: no need to lift the tray for rotation; no coupling needed to rotate joystick in synchronism with table; no air bearings on table for rotation, etc.

STATINTL will also specify a lamp by next week, so that we can start on lamp housing design, etc. By having outside help, we can do parallel designs in house of lens turrets, condenser switching mechanisms, etc., which will be reflected in next month's PERT Chart.

Very truly yours,

STATINTL

Director of Operations

WHM:lhf
Enclosure (Pert/Time Analysis)
cc: Contracting Officer

Next 2 Page(s) In Document Exempt

CONTRACT INSPECTION REPORT

CONTRACT NO. | TASK NO.

25X1A

TO: ENGINEERING SECTION/CB/PD/OL

DATE: 6 SEP 1963

INSPECTION REPORT NO. *(If final, so state)*: 2

ESTIMATED COMPLETION DATE: 1 May 1964

NAME OF CONTRACTOR

25X1A

TYPE OF COMMODITY OR SERVICE: Film Reader

THE CONTRACTOR IS ON SCHEDULE [X] YES [ ] NO

THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS [X] YES [ ] NO

THE CONTRACTOR WILL COMPLETE TASK WITHIN ALLOTTED TIME [X] YES [ ] NO

ALL PHASES OF THE TECHNICAL PROGRESS ARE SATISFACTORY [X] YES [ ] NO

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? [X] YES [ ] NO *(If yes, give details on reverse side.)*

Monthly Status Report

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? [ ] YES [X] NO *(If yes, indicate items, quantity, and cost on reverse side.)*

OVERALL PERFORMANCE OF CONTRACTOR

1. [ ] OUTSTANDING
2. [ ] SUPERIOR
3. [X] EXCELLENT
4. [ ] HIGHLY SATISFACTORY
5. [ ] ACCEPTABLE
6. [ ] BARELY ADEQUATE
7. [ ] UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

[X] CONTINUE AS PROGRAMMED

[ ] WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE

[ ] TERMINATE

[ ] OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT, CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

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PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR: 20 August 1963

25X1A

DIVISION: PRDS

25X1A

SIG

CONTRACT INSPECTION REPORT

CONTRACT NO. | TASK NO.

25X1A

TO:

ENGINEERING SECTION/CB/PD/OL

DATE
13 August 1963

INSPECTION REPORT NO. *(If final, so state)*
1

ESTIMATED COMPLETION DATE
1 May 1963

NAME OF CONTRACTOR

25X1A

TYPE OF COMMODITY OR SERVICE
Film Reader

THE CONTRACTOR IS ON SCHEDULE [X] YES [ ] NO	THE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS [X] YES [ ] NO
THE CONTRACTOR WILL COMPLETE TASK WITHIN ALLOTTED TIME [X] YES [ ] NO	ALL PHASES OF THE TECHNICAL PROGRESS ARE SATISFACTORY [X] YES [ ] NO

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? [ ] YES [X] NO *(If yes, give details on reverse side.)*

HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? [ ] YES [X] NO
(If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. [ ] OUTSTANDING
2. [ ] SUPERIOR
3. [X] EXCELLENT
4. [ ] HIGHLY SATISFACTORY
5. [ ] ACCEPTABLE
6. [ ] BARELY ADEQUATE
7. [ ] UNSATISFACTORY

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION

[X] CONTINUE AS PROGRAMMED
[ ] WITHHOLD PAYMENT PENDING SATISFACTORY PERFORMANCE
[ ] TERMINATE
[ ] OTHER *(Specify)*

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT, CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

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PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR
4 June 1963

SIGNATURE OF INSPECTOR

25X1A

DIVISION
P&DS

25X1A

IN

GROUP 1
Excluded from automatic downgrading and declassification

(12-36)

STATINTL

9 August 1963

STATINTL Subject: PROGRESS REPORT - Variable Width Film Reader

Dear John:

The present status of our work on the Variable Width Film Reader is as follows:

1. An experiment has been designed to check the liquid film gate for the following: satisfactory metering of film, dynamic characteristics of film in gate, slewing of large film reels, parameters of the air knife, operation of the servo systems, convenience of loading and operation, and operating characteristics of the liquid circuits. Schedules have been prepared for this portion of the work in detail, layouts and block diagrams have been made for the mechanical, electronic, piping and instrumentation sections. Release of parts for fabrication will commence Friday, 9 August. Electronic parts are already being purchased for the film drives.

2. The optical layout is in process. A large proportion of the work depends upon defining a light source. The physical dimensions as well as the basic design of the light source will affect the machine structure. Consequently STATINTL has been contacted several times regarding their program. The last phone contact was shortly after our last communication with you on Thursday, 8 August. At that time, STATINTL indicated he was still bothered by the characteristics of the light field resulting, he thought, from an uneven surface on the reflector. It is planned that he will call us no later than Monday, 12 August, to inform us of the earliest time when two light sources will be in operation for us to observe. I requested that we be able to see them prior to your visit here. This will allow us to discuss with you the very real possibility that a conventional optical system will be required.

Subject: Progress Report -
Variable Width Film Reader (Job 165)

9 August 1963

3. Layout of the remainder of the machine is proceeding more slowly than the film gate. Of necessity, we are checking interferences at various points on the equipment, and this has resulted in several layouts to define the limits of action of the lens turret, etc. This portion of the job is not being accelerated at the same rate as the gate. However, it should be noted that the gate will be complete and operating 15 September. Prior to that time, most of the engineering on it will have been completed and the personnel working on that can be diverted to the remainder of the machine.

We do not presently foresee any difficulty in making our originally scheduled delivery of the machine.

Very truly yours,

STATINTL

Director of Operations

WHM:lhf

Next 2 Page(s) In Document Exempt

19 August 1963

Attention: Contracting Officer

STATINTL Subject: Expenditure Report - Contract [redacted]

Gentlemen:

Pursuant to the terms of the above contract, the expenditures as of August 4, 1963 are listed below. Please note material expenditures include committed purchase orders as well as actual material expenditures.

STATOTHR Estimated cost for performance of contract (Exclusive of Fixed Fee) [redacted]

STATOTHR [redacted]

Very truly yours,

STATINTL [redacted]

Business Manager

BCJ:lhf

STATOTHR

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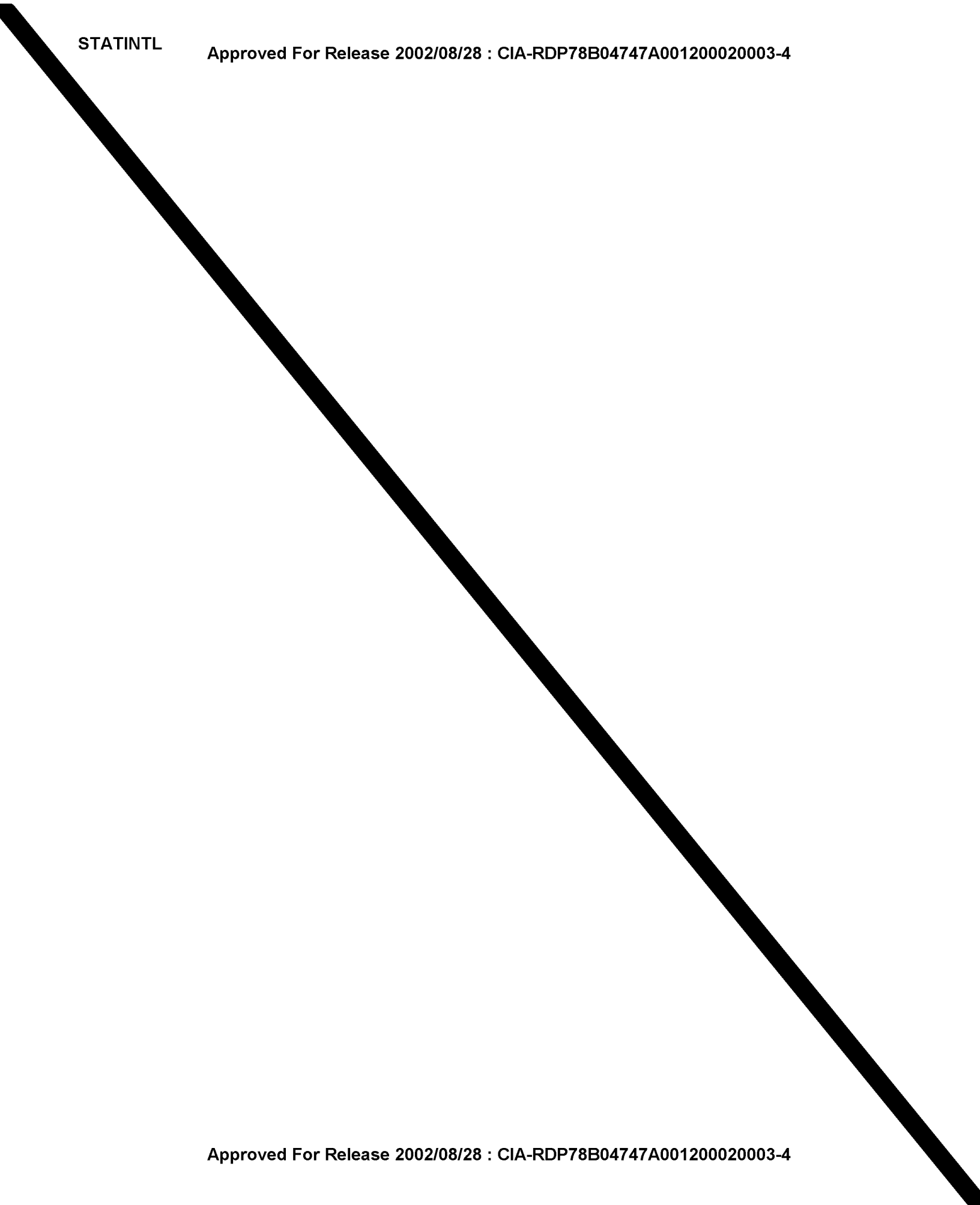

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Honeywell Film Width Reader

MEMORANDUM FOR: Assistant for Plans and Development, NPIC

25X1A ATTENTION [redacted]

SUBJECT [redacted]

25X1A

1. Reference is made to the [redacted] memo of 5 February 1964 requesting approval of their summary of a paper they desire to release to the March meeting of the ASP concerning the use of liquid freon for cooling a film viewer. Reference is further made to the notation 25X1A by [redacted] that he has approved release of the summary from a technical point of view.

2. Release of the summary as printed, is security approved with 25X1A the one admonition that [redacted] must be reminded that in no way can they 25X1A identify the sponsor, and therefore must claim the use of freon as a coolant as being an in-house project sponsored solely by [redacted] It is 25X1A understood that [redacted] will so advise the company officials involved.

25X1A [redacted]

Chief, Security Branch
Administrative Staff, NPIC

CONCURRENCE:

25X1A [redacted]

for [redacted] NPIC

Distribution:
Orig.&1 - Addressee
1 - C/LB/AS/NPIC
1 - SS/OL
25X1A 1 - [redacted] File
1 - Chrono

77-7053

CONFIDENTIAL

16 December 1965

25X1A MEMORANDUM FOR: [redacted]

SUBJECT : New VWFR Controls

25X1A 1. Experience in operating the [redacted] VWFR indicates a need for the following supplementary controls:

1. A lamp "Start" switch on the operator's control panel.

2. A "Servo Stop" switch within reach of the "Servo Start" switch and also on the operator's panel.

2. The first is a convenience to allow starting the lamp without walking to the rear of the machine. The second will help prevent film damage should the film be incorrectly threaded or break when the servos are energized. At present, one must run to the opposite side of the VWFR and throw the "Load-Operate" switch to "Load".

25X1A [redacted]
Equipment Performance Section

Distribution:
Orig & 1 Addressee

25X1A cc: [redacted]

P&DS/DB TYPING SLIP

Title: Variable Width Film Reader (Memo)

Classification: Conf. Project No. 997053

STATINTL Originator [redacted] Date 7 Jan 66

2 Chief (ISS) (~~ASS~~) (~~ISPD~~) Initials JA Date 7 Jan

1 Type Room Date

Deputy Chief, DB Initials Date

3 Chief DB Initials Date

4 Asst for P&DS Initials Date

5 Type Smooth 11 Jan 66

Date of Final Disposition

Return this slip to originator after final disposition

Remarks:

Gerry — Part of the problem is in IPD — we should lay out an operational test program that we want PAG to follow — with definite

STATINTL questions about the [redacted] & ID use that we want answered and send a copy to IPD to

STATINTL see if they can cooperate in the program. — See me — let's talk about this.

See 997295 file (Memo to PAG)

ILLEGIB

DRAFT
NPIC/P&DS/D/6-193
10 February 1966
16 Feb '66

MEMORANDUM FOR: Chief, Image Analysis Division, CIA

25X1A ATTENTION:

25X1A SUBJECT: Evaluation of Variable Width Film Reader

25X1A 1. The Variable Width Film Reader installed in PAG room, has been accepted by P&DS/NPIC as a working prototype rear-projection reader. In order for the Development Branch to improve on the production model design and establish the validity of a production model, it is requested that IAD evaluate the prototype ~~Variable Width~~ Film Reader.

2. This equipment is a prototype, and P&DS realizes that there will be undersirable features, inconveniences, and maintenance problems associated with its operation. However, we request IAD to evaluate the ~~Variable Width Film~~ Reader for its usefulness as an interpretation tool.

3. Attached is an equipment evaluation form that may be helpful in

25X1A performing the evaluation task. of the Development Branch, is available for discussion of any matters regarding the use of this machine.

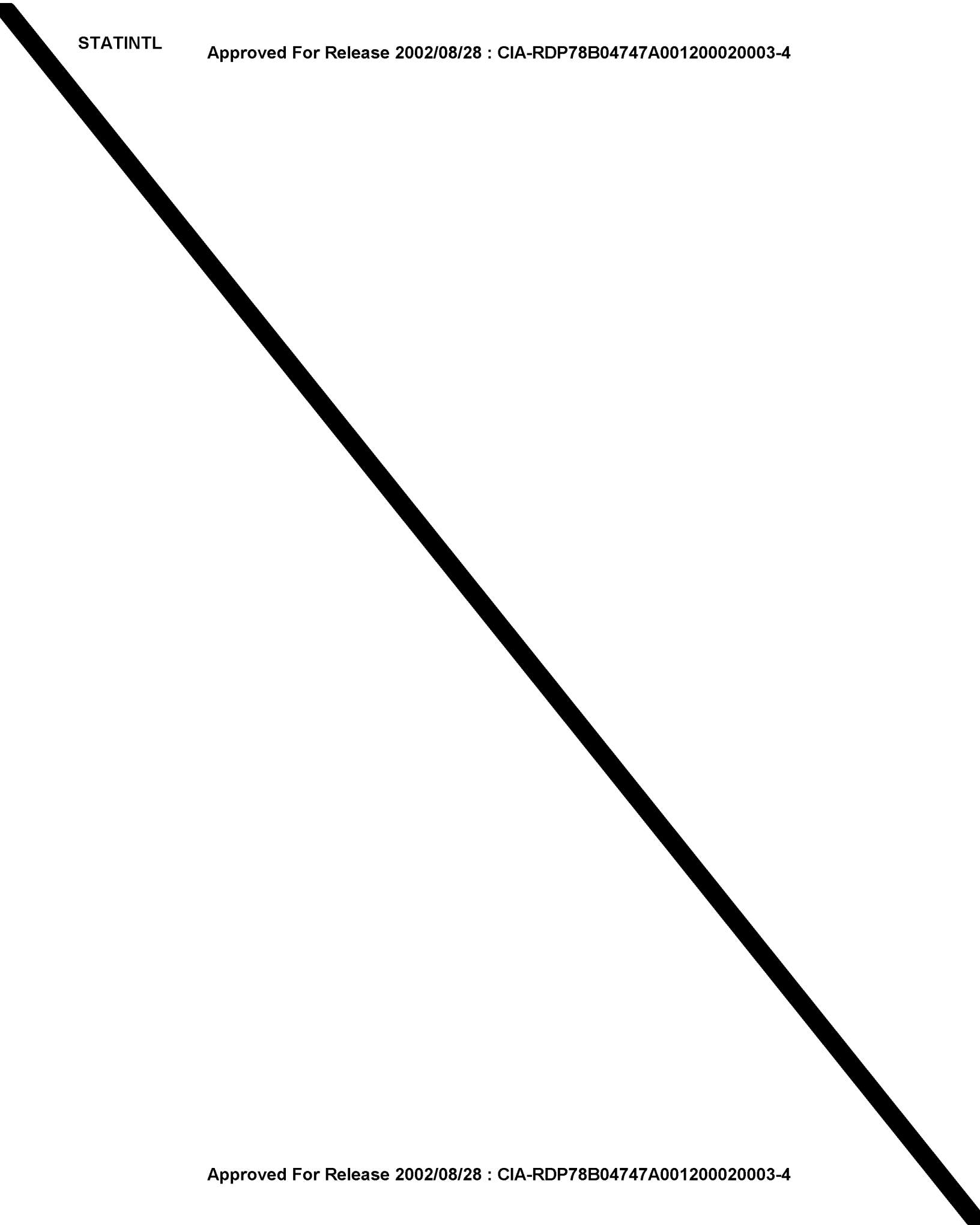
25X1A

Colonel, USAF
Assistant for Plans and Development, NPIC

Attachment: Equipment Evaluation Form

Distribution:
Original and 1 - Addressee
1 - Project File/DB (#99705-3)
1 - Chrono/DB

25X1A NPIC/P&DS/DB: (10 Feb 66)



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NPIC/P&DS/D/6-793
16 February 1966

MEMORANDUM FOR: Chief, Image Analysis Division, CIA

25X1A ATTENTION: [redacted]

25X1A SUBJECT: Evaluation of [redacted] Variable Width Film Reader

25X1A 1. The [redacted] Variable Width Film Reader installed in PAG Room 38435D, has been accepted by P&DS/NPIC as a working prototype rear-projection reader. In order for the Development Branch to improve on the production model design and establish the validity of a production model, it is requested that IAD evaluate the prototype reader.

2. This equipment is a prototype, and P&DS realizes that there will be undersirable features, inconveniences, and maintenance problems associated with its operation. However, we request IAD to evaluate the reader for its usefulness as an interpretation tool.

25X1A 3. Attached is an equipment evaluation form that may be helpful in performing the evaluation task. [redacted] of the Development Branch, is available for discussion of any matters regarding the use of this machine.

25X1A [redacted]

Colonel, USAF
Assistant for Plans and Development, NPIC

Attachment: Equipment Evaluation Form

Distribution:
Orig and 1 - Addressee
2 - P&DS/DB - 1-Project File/DB (#997053)
1-Chrono/DB

25X1A NPIC/P&DS/DB: [redacted] (10 Feb 66)